Studies in West Germanic syntax

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Publication date:
1989

Document Version
Publisher's PDF, also known as Version of record

STUDIES IN WEST GERMANIC SYNTAX

HANS DEN BESTEN

STUDIES IN WEST GERMANIC SYNTAX

PROEFSCHRIFT

ter verkrijging van de graad van
doctor aan de Katholieke Universiteit Brabant,
op gezag van de rector magnificus, prof. dr. R.A. de Moor,
in het openbaar te verdedigen ten overstaan van
een door het college van dekanen aangewezen commissie
in de aula van de Universiteit
op vrijdag 22 december 1989 te 14.15 uur

door

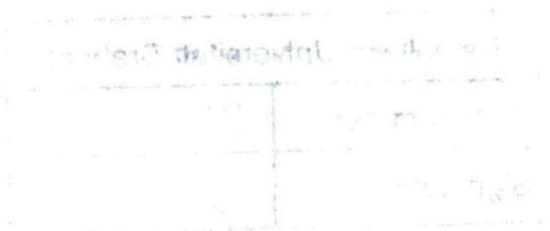
JOHANNES BERNARDUS DEN BESTEN

geboren te Amsterdam

Rodopi

AMSTERDAM - ATLANTA, GA 1989

Promotor: Prof. Dr. H.C. van Riemsdijk



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chapter 2: 'On the Presence and Absence of *Wh*-Elements in Dutch Comparatives.' *Linguistic Inquiry* 9 (1978), 641-671.

chapter 3: 'Decidability in the Syntax of Verbs of (Not Necessarily) West-Germanic Languages.' *Groninger Arbeiten zur Germanistischen Linguistik* (GAGL) 28 (1986), 232-256.

chapter 4: 'A Case Filter for Passives.' in: A. Belletti, L. Brandi and L. Rizzi (eds.). *Theory of Markedness in Generative Grammar. Proceedings of the 1979 GLOW Conference.* Pisa: Scuola Normale Superiore di Pisa. 1981. pp. 65-122.

chapter 5: 'The Ergative Hypothesis and Free Word Order in Dutch and German.' in: J. Toman (ed.). *Studies in German Grammar.* Dordrecht: Foris Publications. 1985. *Studies in Generative Grammar* 21, pp. 23-64.

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Acknowledgements

Having collected a couple of my papers for this dissertation and having written sixteen minipaperlike addenda, it is time to thank those who — in one way or another — have been important for my career in linguistics.

First of all, rather than putting in a traditional dedication on a white page I would like to thank my parents for the cultural and intellectual atmosphere they created at home, which certainly made me thrive. I may have seen too many churches and chapels during summers but those trips sure taught me German.

Next I would like to thank my sisters and brothers-in-law for always being good company — and for inadvertently providing me with such beautiful examples as (72)d. in chapter 2.

On the scholarly side I would first like to thank the Netherlands Organization for the Advancement of Pure Research (ZWO) (now NWO) for grants 30-32 (+ R30-63) and 17-23-07, which gave me time to find my place in linguistics. Thanks also to Simon Dik who was willing to apply for those grants. He may have gone his own functional way but he has always defended the right for Generative Grammar to have a niche at the Linguistics Department of the University of Amsterdam. It was certainly not his fault when the position for formal grammar, which I was going to get eventually, was reduced, because he fought like a lion.

In the mean time I have developed my own little center of Germanic studies at this university — but not without interaction with those who together with me are now gathered under the *Facultair Aandachts-Gebied* (or: *VF-programma*) *Generatieve Grammatica*, a research program for Generative Grammar at the Faculty of Arts of the University of Amsterdam, whose proper title(s) I will not try to translate. I could mention many names here, but I will single out two: Pieter Muysken and Norval Smith. They have always been good colleagues and good friends. Their efforts to introduce and promote Creole studies at the University of Amsterdam have also been beneficial for me witness my growing involvement in Creole studies in the course of years, which is partially conditioned by my Netherlandicist upbringing.

Looking back to my student years I fondly recall the time that Henk van Riemsdijk and I were students. Things did not change in the years afterwards, when Henk was teaching at Linguistics while I had a research

grant or later when I was teaching at other departments. It was through his 1976 NELS paper that we got to know Hans du Plessis, who — in one of the offices of building 20 at MIT — introduced Henk, Jan Koster and me into some of the problems of Afrikaans syntax, which in fact triggered my work on Afrikaans. Little did we know then that Henk was going to be my *Doktorvater* at KUB in Tilburg. As a truly modern father he did not always know whether to push or to pull and only slowly could he induce me to give up the idea of rewriting papers for a dissertation.

After having mentioned those at Linguistics, I may not forget my other Department, the Dutch Grammar Department of the University of Amsterdam. It was through Dutch studies that I turned to Linguistics. Thanks to Jan Luif who gave me my first lessons in Generative Grammar. Thanks also to Wim Klooster and Henk Verkuyl (the latter now at RUU in Utrecht). Henk Verkuyl's seminar on subordinators and Wim Klooster's seminar on *of* certainly triggered my ongoing interest in COMP. How could we know then that later I would get a temporary part-time job at the Dutch Grammar Department and stay. I thank the subsequent boards of that Department for having done their best to keep me there. Due to unforeseen circumstances my temporary job could be turned into a tenured one on the basis of a new assignment.

That is why — finally — I want to thank the Board of the Faculty of Arts of my university for offering me the (reduced) position for Afrikaans studies at the Dutch Department after it had become vacant due to Truida Lijphart-Bezuidenhout's untimely death. I regard this gesture as an official recognition of, and support for, my historical and synchronic research on Afrikaans and I am grateful for that.

Introduction

This study is a composition of five papers in the field of West Germanic syntax and five sets of comments called "Remarks". The papers were written between 1977 and 1986 and published between 1978 and 1986. In one case a paper was not published until six year after copies of its initial draft were distributed and had to be expanded with a second Appendix to incorporate 'new' ideas, which in fact dated back to 1978. I am referring here to chapter 1. of this volume.

The fate of chapter 1. shows how much studies in linguistics (in this case: Generative Grammar) are subject to the vicissitudes of progress in the field, sometimes progress caused by changes in one's own ideas, sometimes progress from elsewhere. It is for this reason that every chapter is followed by a Remarks section showing how the papers are interrelated, where a more recent paper revises ideas of an earlier paper, where ideas of an earlier paper have to be revised due to changes in the theory or due to changes in my own ideas laid down in a more recent paper, and finally: how certain ideas can be evaluated in view of the most recent literature.

This series of five papers in combination with the respective Remarks sections bear witness to my continuing struggle to come to grips with Germanic syntax, more specifically West Germanic syntax, in the context of Generative Grammar. The papers have been chosen in such a way that they all deal with central aspects of the syntax of the (West) Germanic SOV languages German and Dutch. Due to my minuscule knowledge of Frisian, another Continental Germanic SOV language, no attention is paid to this language, apart from some remarks in chapter 3. Furthermore some attention is paid to phenomena in Swedish and English, two Germanic languages, and French, a member of the Romance group. A more central role is played by what could be referred to as the fringes of West Germanic: Yiddish and Afrikaans (although one may have one's doubts as to whether Afrikaans is a West Germanic language, but that is a different matter). Without Yiddish and Afrikaans there would be no chapter 3.

The five chapters collected in this volume divide into two groups. Part 1. of this volume consists of three studies on the syntax of COMP, V and INFL, while two studies on passive and ergative constructions make up Part 2.

Chapter 1. is an attempt to improve upon the theory of root transformations of Emonds (1976) as well as an attempt to defend Emonds's Structure Preserving Hypothesis against potential counterexamples. First it is shown — on the basis of Dutch and German data — that root transformations can be defined as Complementizer Attraction Rules and it is argued that this can be made to follow from the theory if we assume an S-$\bar{S}$ distinction and a refined version of Williams' theory of applicational domains (cf. Williams (1974)). Furthermore it is concluded from Chomsky's Upgrading Principle (Chomsky 1976a) that a language with WH-Movement must make a distinction between S and $\bar{S}$. As a second step in the argumentation it is shown that the Complementizer Attraction Hypothesis for root transformations makes the right predictions for root phenomena in languages like French and English and that Emonds's set of English root transformations can be considerably reduced. Thus many root phenomena can be defined in terms of one or two Complementizer Attraction Rules; other phenomena need one Complementizer Attraction Rule plus or minus one stylistic rule, while certain root constructions do not need a root transformation of their own at all because they can be defined in terms of other mechanisms available in the grammar of English.

In the main text of this chapter it is assumed that the root phenomenon of (finite) Verb Preposing, or: V-to-COMP, can best be described as an adjunction of the finite verb to COMP inducing an obligatory deletion of the lexical complementizer. However, in Appendix II it is shown how these two mechanisms can be collapsed into a complementizer substitution rule if the finite complementizer is described as a position [+T], which makes it categorially nondistinct from a [+T] verb. Furthermore in the Remarks section it is argued that the CP analysis of recent years makes better predictions for across-the-board applications of Complementizer Attraction Rules than does the old $\bar{S}$ analysis.

The remaining parts of chapter 1. are devoted to a defense of Emonds's Structure Preserving Hypothesis against potential counterexamples. The *pièce de résistance* of this defense is the treatment of two antiroot phenomena: Swedish *Ha* Deletion and German *Haben/sein* Deletion. Although the pertinent rules may only be applied in embedded contexts, it can be shown that their antiroot behavior follows from the fact that their application is bled by an application of Verb Preposing (V-to-COMP) due to the Counterdeletive Ordering Principle (an early version of the ordering of PF-rules after movement rules). In some cases V-to-COMP will destroy the context for lexical deletive rules because these rules have to be local. In other cases V-to-COMP will not destroy the local context for lexical deletions and still the deletion rule will block

due to the Base-Generability Principle which requires inter alia that the potential deletee be in a position where it can be base-generated. It is concluded from this principle that V-to-COMP cannot be a rule substituting a finite verb for a position V under COMP. The substitution analysis proposed in Appendix II, however, does not weaken the effects of the Base-Generability Principle for lexical deletive rules. Finally, some attention is payed to the interaction between Subject AUX Inversion and *Do* Deletion in English.

Chapter 2. concentrates upon WH-Movement in connection with deletion rules. It is an attempt to show that it is possible to construct an argument for the WH-analysis of Comparative Deletion, more specifically: an argument in favor of the presence of a WH-element in the COMP of a Comparative Deletion clause in Dutch in spite of the fact that it will never show up phonologically. First it is shown that comparative complements consisting of the prepositional particle of comparison *dan* 'than' followed by a clause that is introduced by a WH-element are instances of phrasal comparatives (i.e. comparative *dan*+XP sequences that do not derive from Comparative Ellipsis), where the phrase following *dan* is a free relative. Therefore such examples do not constitute overt evidence in favor of the WH-analysis for sentential comparatives. However in section 4. of this chapter it is shown that the systematic difference between the comparative subordinators *dan* 'than' and *dan dat* 'than that' can be accounted for by the WH-analysis in that the absence of *dat* 'that' is the subordinator *dan* is dependent upon the syntactic presence of a WH-element to the right of *dan*. The deletion of the comparative WH-element itself is a dependent upon the preposition-like element *dan* which takes the comparative WH-clause as its complement.

Chapter 3. returns to the syntax of finite verbs. The central question addressed in this paper is how a subordinate clause of the form COMP -Subject NP - V_f - V_1 ... V_n - Y ($n \geqslant 1$) must be described if we meet one in a language or dialect of the Germanic SOV type. It is argued that in principle three analyses are available and that it may not always be easy to decide which rule is involved. Firstly, the pertinent embedded sequence may be an instance of embedded V-to-COMP plus Topicalization of the Subject phrase. This is a marked phenomenon which takes place if COMP selects an $\bar{S}$ (or: CP) rather than the usual S (or: IP) — a topic only briefly touched upon in chapter 1. However, this unusual ordering of the finite verb may also be the result of the process of Verb Projection Raising whereby an embedded VP may end up on the right of the higher verb (in this case the finite verb). Finally this unusual sequence may be the result of V-to-INFL. It is suggested that languages/dialects in a transi-

tional stage may vary the position of their INFL, so that V-to-INFL to the left does not have to be obligatory.

Although no attempt is made to define an exhaustive decision procedure for such cases, some tests are suggested. First of all, the Verb Projection Raising analysis can be excluded if in the language/dialect under consideration sequences of the type ... infinitival Raising verb - VP ... are ungrammatical. Secondly, if the language/dialect under consideration does not make use of Verb Projection Raising, a WH-Movement test can be applied, since — as is demonstrated on the basis of data from Frisian and Yiddish — an embedded V-to-COMP structure governed by COMP is an island whereas V-to-INFL does not block WH-Movement.

A first analysis of the syntax of finite verbs in Afrikaans (in the final part of this chapter and in the first part of the Remarks section) yields some interesting results. Afrikaans, an SOV language with Verb-to-Comp in root sentences, permits subordinate clauses of the type COMP -Subj. NP - V_f - Y - V_1 ... V_n ($n \geqslant 1$). Application of the WH-Movement test shows that these must be cases of embedded V-to-COMP. Unfortunately Afrikaans also permits sequences of the type COMP - V_f - X in embedded questions (where COMP may be *dat* or ø if it is preceded by a WH-phrase) for which no convincing analysis is available yet — partly because such subordinate clauses are unknown entities in the variation space of the Germanic languages in Europe which this chapter gives an overview of.

Chapter 4. is the first chapter of Part 2. of this volume (Studies on passive and ergative structures). In this chapter it is argued that there are two passives in Dutch and German corresponding to the verbal and the lexical passive of English, and that arguments brought up against the existence of a rule of Move NP in SOV languages such as Dutch and German are not valid. Therefore the verbal passive in these languages may be derived by means of Move NP, which tallies with the fact that idiom chunk passives are permitted in these languages as well as some Benefactive, Indirect Object, and Subject Raising passives. The nonexistence of pseudopassives (or: prepositional passives) as well as the virtual nonexistence of Subject Raising passives is explained on the basis of independent syntactic properties of the pertinent languages. The ungrammaticality of Indirect Object passives in Dutch and German (but for some well-defined cases) is contrasted with the ungrammaticality of Direct Object passives derived from English double object constructions. The solution offered is cast in terms of Case Theory, for which a variant of the theory of Case put forward in Chomsky (1980) is chosen. It is assumed that the NP nearest the verb is assigned objective (i.e. accusative) Case whereas the next NP inside the VP will get oblique Case under

unmarked circumstances. Thus in an SOV language (German, Dutch) the Direct Object will get objective Case in double object constructions whereas in an SVO language (English) the Indirect Object NP in a double object construction will get that Case. It is furthermore assumed that there is a filter barring any trace marked with oblique Case unless it is a WH-trace. From these two assumptions it follows that in an SOV language — all else being equal — the Direct Object will passivize under all circumstances whereas in an SVO language the Direct Object will passivize only if it is adjacent to the verb at D-structure. Furthermore it is predicted that if an SOV language permits lexically marked Indirect Objects with accusative Case such objects may passivize as well. This prediction is borne out by the facts of German. Finally some remarks are made about markedness and syntactic change from SOV to SVO in the history of English.

In spite of the nice results there are some residual problems for the theory put forward in this chapter. Thus there is no account for German Accusative Genitive structures although these are not incompatible with the framework defended in chapter 4. Furthermore there is no explanation for the fact that it is the accusative Indirect (personal) Object rather than the Direct Object that must passivize in double Accusative structures. Finally, the theory leaves unexplained why there are no impersonal passives with accusative Direct Objects in German or Dutch, nor impersonal passives with double Accusatives.

The latter problem can be solved, of course, by the Case absorption theory of passives of Government and Binding Theory. This is one of the reasons why *chapter 5.* is modeled along the lines of Government and Binding Theory. As for the first and the second problem mentioned above this chapter assumes without furter discussion that there is an Oblique position between the Direct Object and the verb, which is at variance with what is said in chapter 4. As for double object constructions chapter 5. maintains the theory about the parametric difference on Case-assignment between SOV and SVO languages, while the (structural) Oblique Case of double object constructions is now assigned a position of its own outside the $\bar{V}$ (small VP).

The main problem addressed by chapter 5., however, is another residual problem of chapter 4., which was not regarded as a problem then: the free ordering of the Nominative and the Dative in passives of double object constructions in Dutch and German, which can also be observed for certain intransitive verbs in these languages. The pertinent verbs are all analyzed as ergative verbes so that the cases can be collapsed: in both classes of structures the Nominative is an (NP,$\bar{V}$) in D-structure which cannot get structural Case from the verb.

It is argued that — while the Nominative is in (NP,S) position in the NOM DAT order — it is in (NP,$\bar{V}$) position in the DAT NOM order, while the Dative may show up in (NP,S) position. A new mechanism, chain-government, is proposed which allows an external Case to percolate down to assign Case to a Case-less NP *in situ*, where the external Case may come from COMP (Nominative) or from a higher verb (Accusative). Since an external Case may also be assigned under government, it may go to the Subject position, in which case the Case-less NP must move to that position. Finally, it is assumed that the choice for chain-government is parametric. It is argued that this configurational treatment of certain aspects of the freedom of word order in Dutch and German demonstrates that German and Dutch need not be nonconfigurational languages. In sections 5. and 6. it is shown how this analysis can be extended to Nominative-Dative Inversion in copular constructions and Raising contexts and to NP inversions with some other verbs, notably Nominative-Accusative Inversion with psychological verbs.

In the Remarks section following chapter 5. it is suggested that we might want to give up Move NP for German and Dutch altogether since the recent literature gives ample evidence for an Adjunction operation in German and Dutch syntax, which optionally moves argument NPs and PPs off their D-structure position and adjoins them to a dominating projection — in many cases outside their own VP. This obviates the need for a rule of NP Movement. If Move NP is given up Case-assignment in a language that has chosen for chain-government will become simpler. A Case-less NP will always receive external Case through chain-government. Only if there is an external argument will such a Case be assigned to the (NP,S) position.

Whether we stick to the analysis proposed in chapter 5. or go along with the hypothesis suggested in the final Remarks section, the resultant grammar looks quite different than what some may think is standard in Government and Binding Theory — due to the fact that they equate the notion of agreement subject with the notion of (external) structural subject. However, there is no reason to make such an assumption under Government and Binding Theory witness for instance the discussion of ergative structures in Italian in Chomsky (1981). The grammars of English on the one hand and Italian and the Germanic SOV languages on the other hand make use of different means to meet the problem of Case-less Object NPs. A theory of grammar shall try to subsume all those various grammars for individual languages under an explanatory and probably parametrized model of Universal Grammar modulo a set of peripheral phenomena which can be acquired or added to a grammar by rote learning. One may only hope one is not dealing with such 'fringy'

facts if one stumbles upon some 'unusual' phenomena. As for the freedom of word order in Dutch and German passive and ergative constructions I am confident that this qualification does not apply. The phenomena are too general to discard them as belonging to the grammatical periphery. Furthermore, my limited reading in linguistic studies of other SOV languages has taught me that Dutch and German are by no means exceptional, which calls for an explanation at the level of Universal Grammar. This study has not reached that stage yet but hopefully it represents a step in the right direction.

PART 1

Studies on the Syntax of COMP, V and INFL

(Chapters 1.-3. cum Remarks)

Chapter 1

On the Interaction of Root Transformations and Lexical Deletive Rules*

1. Introduction

On a descriptive plane this paper deals with an anti-root rule in Swedish (*Ha deletion*) and its German counterpart (*Haben/Sein* Deletion) and with the ordering of *Wh*-Movement and Subject Aux Inversion in English, which is commonly assumed to be 1. *Wh*-Movement 2. Subject AUX Inversion. It can be shown that the apparently extrinsic ordering of the English rules is a natural consequence of the theory, given the appropriate assumptions, and will be imposed only in those contexts where the subject is preposed by *Wh*-Movement. It can also be shown that the theory is able to predict that under certain conditions the output of grammars defined by the theory will exhibit anti-root phenomena — for instance the deletion phenomena referred to above —, which happen to be special cases of a larger set of phenomena brought about by the interaction of root transformations and specified deletion rules. This, again, given the appropriate assumptions.

The exposition of the argument will be in two steps. First the formal properties of root transformations will be established on the basis of data from Dutch and German (section 3.). The pertinent section, which is a paper in itself, will also briefly deal with root phenomena in French (subsection 3.4.), whereas subsection 3.5. will present a revision of Emonds's division of English root phenomena in the light of the preceding discussion. In section 4. the resulting analysis will be applied to the anti-root phenomena from German and Swedish mentioned above. The solution for the German case of Haben/Sein Deletion is based upon the Counterdeletive Ordering Principle (CDOP) which is independently motivated (Den Besten 1975). The combined insights gained from German and Dutch suffice as an indication for the solution of the Swedish case of *Ha* Deletion, which is less simple than its German counterpart. The general tenor of this paper will be that anti-root

phenomena result from an interaction between Verb Second (a root transformation) and the relevant auxiliary deletion rules. The theory of applicational domains (Williams 1974) has an important role to play here. However, it is possible to develop an explanation which goes beyond simply stating the applicational domains for the pertinent rules. The theory of applicational domains can be given a stronger footing by predicting the applicational domain of a rule on the basis of the relevant terms mentioned in its structural index by means of a condition called the Base-Generability Principle. This principle seems to be tacitly assumed in Williams (1974) and it will be shown in section 5. that it predicts an ordering between *Wh*-Movement and Subject Aux Inversion for exactly that subset of English interrogatives which linguists normally assume needs that ordering. This result serves as independent evidence for the principle at hand. Thus, while at a descriptive level this paper addresses some problems in the description of German, Swedish and English, at a more general plane this paper deals with the definition of root transformations (Emonds 1976) and the theory of applicational domains (Williams 1974).

2. Setting the problem

Edmond's notion of root transformations can be brought under attack from two sides, I think. Root transformations are supposed to operate on so-called root sentences (Emonds 1976). So a possible critique could be that rules that are regarded as root transformations do operate in subordinate clauses too. Furthermore Emonds's Structure Preserving Hypothesis (Emonds 1976) implies that there are no rules that are by definition confined to embedded clauses. So one could show that such rules do exist.

The first line of attack is followed by Hooper and Thompson (1973). They claim that the emphatic root transformations are applicable in Ss that are asserted, whether these Ss are subordinate clauses or root sentences. Their claim is substantiated with a wealth of examples where root phenomena show up in subordinate clauses. It does not necessarily follow, though, that Emonds is wrong in stating that root transformations apply to root sentences only. The data Hooper and Thompson present can be interpreted either way: Instead of taking these data as an indication to the effect that Emonds's position is untenable, one might turn the argument around and conclude from the fact that speakers of English accept subordinate clauses with root phenomena only if these clauses are asserted, that these clauses do not belong to the central parts — or core (cf. Chomsky 1976b) — of English grammar and that the

conditions Hooper and Thompson specify define contexts where subordinate clauses or the S-parts of them may be redefined or reanalyzed as root sentences. I hesitate between reanalysis of $\bar{S}$ or reanalysis of S, although I think it should be reanalysis of S. Hooper and Thompson did not consider the question of whether it is of any relevance that root sentences do not exhibit a phonological COMP, whereas these root constructions in subordinates are preceded by complementizers.[1] This is understandable, since their approach basically is an informal one. The observation that surface sequences of simple declarative root sentences without root phenomena are identical to the surface sequences of corresponding subordinate Ss should cause some caution, as should the observation that a language like Dutch with its drastic distinction between root word order and subordinate word order[2] does not apply any root transformation to subordinate clauses.[3] The same holds for

*) The bulk of this paper was prepared during a stay at MIT in the Fall of 1976, and a mimeographed version was circulated in the early Spring of 1977 and was eventually reproduced in GAGL (Groninger Arbeiten zur germanistischen Linguistik) 20 in 1981. The present version has been left virtually unchanged but for some necessary stylistic and editorial improvements. However, a second Appendix has been added in which I discuss an alternative hypothesis concerning the derivation of root phenomena. This alternative account provides i.a. an elegant solution for the complementary distribution of preposed finite verbs in root sentences and lexical complementizers in subordinate clauses. This paper could be written thanks to the financial support by the Netherlands Organization for the Advancement of Pure Research (ZWO), grants 30-32 and R 30-63.

1. In fact, the definition of root transformations as presented in section 3. makes it necessary that the Hooper and Thompson sentences be reconsidered. Also see Green (1976) whose considerations give additional support to the idea that root phenomena in subordinate clauses are possible only if the subordinate clause (probably S, not $\bar{S}$) is reanalyzed as a main clause.

2. Word order in Dutch (and German) subordinates is verb final: COMP - X - C - Y - V^n ($n \geq 1$), whereas declaratives and interrogatives put the finite verb in second position, the first position being occupied by virtually any conceivable constituent, which must be a *wh*-phrase in the case of interrogatives: C - V_f - X - Y - V^{n-1} ($n \geq 1$). Yes/no-questions prepose the finite verb only: V_f - X - C - Y - V^{n-1} ($n \geq 1$).

3. There is some evidence against this claim, but that evidence is rather weak. Judging from sentences like (i) and (ii) that are virtual variants of each other, from a semantic point of view, one could imagine that Verb Preposing has applied to a subordinate clause in (ii):

(i) Als je nog geld nodig mocht hebben, (dan) wil ik je wel helpen
If you yet money need, (then) want I you surely help

(ii) Mocht je nog geld nodig hebben, dan wil ik je wel helpen
Might you yet money need, then want I you surely help

However, the alleged subordinate clause in (ii) is not a true subordinate clause: It

German.[4] These data about English, Dutch and German may be viewed as pure accidents, quirks of Mother Language, that do not deserve any further attention. But another interpretation might be that in general root phenomena do not occur in subordinate clauses, which is in accordance

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cannot be put in the first position preceding the finite verb of the matrix sentence, whereas subordinate clauses usually can (compare (ii) with (i) and (iii) and (iv)). Something must intervene between the conditional clause to which Verb Preposing has been applied and the verb of the matrix sentence (compare (ii) with (iv) and (v)):

(iii) Omdat hij wat geld nodig had, heb ik hem geholpen
Because he some money needed, have I him helped
(iv) *Mocht je nog geld nodig hebben, wil ik je wel helpen
(v) Mocht je nog geld nodig hebben, ik wil je wel helpen

Therefore, it is doubtful whether conditionals with root characteristics are subordinate clauses. They probably are marked root sentences, marked in that Constituent Preposing has not applied. In that case these constructions are comparable to the first sentence in texts like the following one, which expresses a contrast:

(vi) Vond je dit museum al om the huilen. Het volgende zal je
Found you this museum already deplorable. The next one will you
nog minder behagen.
still less please.

Finally, there are clauses introduced by *al* 'even if, even though' which are interpreted as subordinate clauses but have more or less the same distribution as conditionals with preposed finite verbs: Some constituent must intervene between the alleged subordinate clause and the verb of the alleged matrix sentence (compare (vii) and (viii)). Furthermore, it is not clear whether *(ook) al* is a subordinating constituent. For these and more observations see Paardekooper (1971).

(vii) (Ook) al gaf je me een miljoen, dan zou ik het nog niet doen
Even if gave you me a million, then would I it yet not do
(viii) a. (Ook) al gaf je me een miljoen, ik doe het niet
Even if gave you me a million, I do it not
b. *(Ook) al gaf je me een miljoen, zou ik het nog niet doen
c. *(Ook) al gaf je me een miljoen, doe ik het niet

4. Conjunctive discourse (compare (i)) seems to be a clear counterexample to this claim. However, see Appendix I for evidence to the contrary.

(i) Er sagte, er wäre krank
He said, he were (conjunctive) ill
(ii) Er sagte, daß er krank wäre
He said, that he ill were (conjunctive)

More problematic are the examples under (7) and (8) in Appendix II. These seem to involve clear cases of subordinate clauses. Still one has to ask why such cases of Verb Preposing are so scanty in Dutch and German, whereas Afrikaans seems to be able to freely apply Verb Preposing in any subordinate clause with concomitant deletion of the complementizer. For a possible explanation see Safir (1980).

with the definition of root transformations. From that point of view, Dutch and German represent the unmarked case of languages defined by the theory. English on the other hand will be the marked case with root phenomena in subordinate clauses. However the occurrence of root phenomena in subordinate clauses is facilitated by the fact that subordinate Ss do not differ from root $\bar{S}$s in word order, provided no root movement transformation has applied to the root $\bar{S}$s. This interpretation of Hooper and Thompson's data may be viewed as an elaboration of Chomsky's idea of grammars as consisting of a core, a central part defined by and in accordance with the theory, and in periphery (Chomsky 1976b, class lectures fall 1976). A confirmation is found in the fact that subordinate clauses do not freely allow root phenomena. Peripheral rules do not, though, have to yield bad results under all circumstances. Hooper and Thompsons's paper contradicts that. Peripheral sentences are acceptable depending upon the context. Nevertheless, it is possible that Hooper and Thompson's data are counterexamples to Emonds's hypothesis of root transformations as rules that apply to root sentences only. But mere data never decide a theoretical debate. Chomsky (1976b) has put it this way that unanalyzed data cannot be counterexamples. True though that may be, I would like to stress that it is also possible that a theory needs to be more precisely articulated before it can be tested. And that will be the avenue I follow in this paper. I will not pay attention to Hooper and Thompson (1973) anymore, but I would like to point out in advance that given the formulation for a large set of root transformations I propose in this paper it is doubtful whether the data Hooper and Thompson present could ever serve as counterexamples to the theory.

More interesting is the criticism of Emonds which one can deduce from the case presented by Andersson and Dahl (1974). Their squib contains the following sentences ((6)-(9) in their numbering), to which I add glosses instead of the original translations in order to facilitate the perception of what is going on syntactically:

(1) Nixon sade/säger att han redan på ett tidigt stadium
Nixon said/says that he already at an early stage
hade insett att han måste förstöra banden
had realized that he had-to destroy tapes-the

(2) Nixon sade/säger att han redan på ett tidigt stadium
insett att han måste förstöra banden

(3) Han hade insett på ett tidigt stadium att han måste
He had realized at an early stage that he had-to
förstöra banden
destroy tapes-the

(4) *Han insett på ett tidigt stadium att han måste förstöra banden

What happens in these sentences is the following. There is an optional rule in Swedish that deletes the auxiliary *ha* (have) in subordinate clauses only. That is why sentence (4) is ungrammatical. Andersson and Dahl present their sentences as counterexamples to the Penthouse Principle of Ross (1973). But it is clear that these are counterexamples to Emonds's theory as well. This does not come as a surprise, since Ross formulates a theory of upper clause and lower clause syntactic processes which is a weakened version of the theory of the distinction between root and nonroot rules.[5]

To the Swedish examples I add a similar case from German. In German an archaic rule can be found that deletes the auxiliaries *haben* and *sein* (both = 'have') in subordinate clauses only:

(5) --, weil er gelacht (hat) (*hat*: 3rd p. sing., pres. tense
--, because he laughed (has) of *haben*)

(6) Er *(hat) gelacht
He *(has) laughed

(7) --, ob er gekommen (ist) (*ist*: 3rd p. sing., pres. tense
--, whether he come (has) of *sein*)

(8) *(Ist) er gekommen?
*(Has) he come

Although the solution for the German case seems to be relatively straightforward, the solution for its Swedish counterpart is not. One might want to say that in German there is an ordering 1. Verb Preposing (root transformation) 2. *Haben/sein* Deletion (nonroot) such that Verb Preposing bleeds the deletion rule.[6] And one might want to propose a similar ordering 1. Verb Preposing 2. *Ha* Deletion for Swedish. This proposal does not suffice, though, to explain the inapplicability of *Ha* Deletion to main clauses. Whether or not Verb Proposing is applied to (3) and (4), *ha* is still to the left of the participle which happens to be the trigger for the relevant deletion rule:

(9) X — ha — PART — Y ⇒ 1,∅,3,4

I would like to show that contrary to what one might expect the pertinent rule ordering does suffice given the proper formulation of transforma-

5. Ross contends that it is necessary to add the Penthouse Principle to Emonds's theory in order to prevent that local rules are formulated such that they apply to subordinate clauses only. It seems to me that all provisions necessary for preventing that are present in Emonds's theory: There are cyclic rules and root transformations. Cyclic rules, i.e. structure-preserving and local transformations, are by definition applicable to all clauses, whether root or subordinate.

6. Details will follow in section 4.

tions in terms of domains. This will be done in section 4. The definition of the applicational domain of Verb Proposing and other root transformations as well as other properties of root transformations will be extensively discussed in section 3. Furthermore, it will be shown, also in section 4., that the rule orderings proposed for German and Swedish follow from a general ordering principle. Thus, a theory which encompasses the root — nonroot distinction plus a number of general theoretical principles can predict how under the proper circumstances languages may present us with anti-root phenomena.

3. Defining root transformations

3.1. Introduction: Two sets of root transformations

Emonds contends (Emonds 1976: II.8) that all the root transformations that front phrasal constituents without inducing comma intonation are substitutions for the sentence-initial COMP node, following a suggestion by Higgins (1973). Similar ideas can be found in Koster (1975a) and Den Besten (1975). And last but not least, the same idea is expressed in Williams (1974), ch. 4, section 2. However, this author notes some problems. I shall return to that later. Den Besten (1975) and Williams agree in that both assume that the Verb Proposing rules of Dutch (and German) and English move a finite verb into COMP, just like other root transformations. This assumption is in apparent contradiction with the general assumption that there is only one root transformation per sentence. I would not say that this conflict is a real problem. Observationally speaking the assumption that there is only one root transformation per sentence is wrong, as can be concluded from the following examples:

(10) Never have I been in Cockaigne
(11) Dit boek heb ik aan mijn moeder gegeven
This book have I to my mother given

In (10) both Negated Constituent Preposing and Subject AUX Inversion (SAI) are applied. Something similar happens in the Dutch example (11).There Topicalization and Verb Proposing[7] are applied. Yet it is clear

7. This rule is sometimes called Verb Second, which is a less felicitous terminology. It is understandable why this rule is called so, because the preposed verb appears in second position in declaratives and interrogatives. In yes/no-questions, however, the same rule fronts the finite verb into sentence-initial position, because no other root preposing rule applies. Compare section 3.2. of this paper, Koster (1975)a and (1978), and Den Besten (1975).

that those who assume that there is only one root transformation per sentence are on the right track. This idea merely needs a slight reformulation: There are two sets of root preposings, one set with only one member, i.e. Verb Preposing (or SAI in the case of English), and one set with all other root preposings. Per sentence and per set only one rule may be chosen. Thus there are four possibilities: No rule is chosen at all; SAI is applied and no rule is chosen from the set of other preposings; SAI is not applied and one rule is chosen from the other set; both SAI and another preposing are applied. These four options are exemplified in (12) through (15):

(12) He will not come
(13) Is he coming?
(14) Here he comes
(15) Only on weekends do I see her

Languages are free in choosing their options. Substituting Verb Proposing for SAI we may say that Dutch does not use the first option at all and relies heavily upon the fourth one. The second option is used for unmarked yes/no-questions and the third one for a declarative construction that is stylistically marked. Compare (16):

(16) Gelachen dat we hebben
Laughed that we have

Other languages may follow different strategies.[8] The situation is complicated by the fact that an application of the cyclic rule of *Wh*-Movement to a root sentence counts as the application of a member of the second set of root transformations. One can draw different conclusions from that observation. Higgins (1973) and Emonds (1976) claim that this observation implies that root transformations move a constituent into the same position as does *Wh*-Movement.[9] Alternatively one might want to retain a sharp distinction between root transformations and cyclic rules and therefore one might want to deny that an application of *Wh*-Movement to a root sentence counts as an application of a root preposing transforma-

8. These remarks are based upon data about Dutch, German, English, and the Nordic languages. I have not studied the Slavonic languages in great detail, but I have the impression that they have collapsed both sets of root preposings. If so, one may wonder whether 2 constitutes an upper bound to the number of possible disjoint sets of root preposings or not.

9. This position can be specified as Δ (Emonds 1976) or as $\bar{\bar{X}}$. The latter option generalizes over Chomsky's (P) NP (Chomsky 1973), compare (i), and other constituents moving into that position.

(i) $\text{COMP} \rightarrow (\text{P})\ \text{NP} \pm \text{wh}$

tion. In that case the observations that underly this assumption may be reanalyzed as follows: It is not true that English yes/no-questions are defined by the second option (SAI only) and English interrogatives by the fourth option (SAI plus *Wh*-Movement which becomes a root transformation in root sentences). Both yes/no-questions and interrogatives are defined by the second option (SAI only). This means that both types of questions are regarded as root variations on sentences with an initial WH-complementizer that have been processed by the relevant cyclic rules. One of these rules is *Wh*-Movement and so yes/no-questions are root variants of clauses introduced by *whether* and interrogatives are root variants of *Wh*-clauses. Echo questions, then, have to be regarded as intonational variants of declaratives. Something similar can be said about Dutch: All questions are defined in terms of the second option (Verb Preposing only) and special questions (i.e. echo questions and questions which the speaker expects to be answered positively) are supposed to be intonational variants of declaratives and so to be defined in terms of the fourth option (Verb Preposing plus another root rule).[10] Since an echo question can echo a preceding sentence that involves Topicalization, it is possible in Dutch to have Verb Preposing plus Topicalization in an echo question (compare Koster (1975a)):

(17) Dat boek had u gelezen, zei u?
That book had you read, said you

(18) Karel mag je niet?
Charles like you not

10. The appearance of *wh*-phrases in echo questions deserves some discussion:

(i) You saw who?
(ii) Je hebt wie gezien? (Dutch)
You have whom seen?

The immobility of the *wh*-phrase cannot be blamed upon the *wh*-complementizer which I suppose underlies (i) and (ii). *Wh*-phrases do not move either when embedded in a *wh*-complement of an echo question:

(iii) He wanted to know whether I know *whom*?
(iv) Hij wou weten, of ik wat gedaan had? (Dutch)
He wanted know, whether I what done had?

Evidently, *wh*-phrases in echo questions are immobile. Period. This immobility may be described as follows: In n. 3 I suggest that text grammar may impose requirements upon two consecutive sentences. The examples I presented were confined to texts that have to be uttered by one speaker. Echo interrogatives require that a speaker X repeat the sentence of the preceding speaker Y, while substituting the appropriate *wh*-phrase for the phrase in the preceding sentence he wants to know more about.

And the following sentence, which is an echo question, does not involve *Wh*-Movement (cf. fn. 10) but only Topicalization:

(19) De vrouw die met wie getrouwd is, ken je niet?
The woman who to whom married is know you not?

This hypothesis about sentence types is not incompatible with the position Higgins and Emonds take. But it is also compatible with the view I want to defend in this paper, namely that Complementizer Attraction Rules are adjunctions and not substitutions.

Before I turn to the touchy question of whether Complementizer Attraction Rules are adjunction rules or substitutions, I would like to establish whether it is possible to formulate all root transformations, and especially the fronting rules among them, as rules moving constituents to COMP. And it is also necessary to know whether there is any evidence in favor of such a description. The evidence will be taken from Dutch and German (section 3.2.). This will be generalized in section 3.3., which will also consider the question of the substitutive or adjunctive nature of Complementizer Attraction Rules.

3.2. Some data on root transformations in Dutch and German

3.2.1. Dutch

The description of Dutch (and German) root phenomena I will present below does not essentially differ from the description argued for in Den Besten (1975). Let us make the following assumptions: First, the grammar of Dutch contains the following base rule that has been taken over from Bresnan (1970 and 1972):

(20) $\bar{S} \rightarrow$ COMP S

Second, elementary transformations are substitution, adjunction and deletion (and maybe permutation) and all transformations are defined in terms of these elementary transformations such that the maximal number of elementaries involved is two and such that any deletion elementary may be accompanied by a substitution or adjunction of the deletee elsewhere in the transformation without there being any other combination of elementaries.

Consider the following sentences:

(21) a. --, of je broer nog komt
--, whether your brother yet comes
b. --, welk boek (of) hij wil lezen
--, which book (whether) he wants read

(22) a. Komt je broer nog?
Comes your brother yet
b. Welk boek wil hij lezen?
Which book wants he read

Dutch happens to have an optional rule of *Whether* Deletion (*Of* Deletion) instead of its obligatory counterpart in English. Thus is evident that the verb preposings that relate (22)a and b to (21)a and b respectively can be described by one rule moving the finite verb towards the complementizer. After the movement of the verb into complementizer position the phonological representative of the complementizer will be deleted.

Now consider the following sentences:

(23) --, dat ik dat boek niet gelezen heb
--, that I that book not read have

(24) a. Ik heb dat boek niet gelezen
I have that book not read
b. Dat boek heb ik niet gelezen
That book have I not read
c. Gelezen heb ik dat boek niet
Read have I that book not

All of the examples in (24) are related to (23). Now, we do not have to devise a separate verb preposing rule to account for that. The same rule that can account for the position of the finite verb in yes/no-questions and interrogatives, i.e. in (22)a and b respectively, can also be used to derive the examples in (24). In that case we have to assume that the elements to the left of *heb* in (24)a-c, namely *ik, dat boek* and *gelezen* respectively, have been preposed by a rule which is similar in effect to *Wh*-Movement. That Topicalization moves *dat boek* and *gelezen* into COMP position will be uncontroversial. However the assumption that also the Subject phrase *ik* — which is in some sort of first position in (23), i.e. the first position of S — moves into a new first position, i.e. the first position of $\bar{S}$, will be less evident, witness the way linguists sometimes speak of Verb Preposing as being a Verb Second rule which puts the finite verb in second position, no matter where that second position is.[11]

11. For instance Bach and Horn (1976). They propose a Verb First rule for yes/no-questions. The also claim that Verb Second (Verb Shift in their terminology) could apply to the complement of *sagen* 'say' in (i), because the complementizer is zero:

(i) Er sagte, er komme morgen
He said, he comes (conjunctive) tomorrow

Nevertheless, it is clear that — if one does not want to prepose the Subject in (24)a — a special verb preposing rule Verb Second will be needed which adjoins the finite verb to whatever constituent happens to be in first position in the declarative sentence. The two verb preposing rules would be incomparable in formulation. On the other hand the description I favor involves only one Verb Preposing rule and therefore requires one extra rule of Subject Preposing (or maybe First Constituent Preposing) which is comparable in formalization to a rule like Topicalization so that it is possible to collapse Subject Preposing and Topicalization into one rule: Constituent Preposing.

The argumentation I have given above is rather formal, but there is some evidence in favor of the idea that Verb Preposing moves the finite verb towards the complementizer both in declaratives and in questions. This evidence involves certain descriptive advantages that follow from the uniform formalization of Verb Preposing as a Complementizer Attraction Rule. This evidence is neutral as regards the proper description of (24)a but that does not bother me, since the superiority of a grammar of Dutch that accounts for all verb preposings by means of one rule that moves the finite verb from a VP-final position (compare (21) and (23)) to one specified position in COMP, is evident.

Dutch possesses two sets of Subject pronouns: a set of strong pronouns which contains i.a. *jij* 'you', *hij* 'he', *zij* 'she' and *wij* 'we' and a set of weak pronouns which contains i.a. *je* 'you', *hij/ie* 'he', *ze* 'she' and *we* 'we' (the *e*'s represent shwas). The weak pronouns have to be adjacent to the COMP, as can be learned from (25):

(25) a. –, dat je/ze gisteren ziek was
–, that you/she yesterday ill were/was
b. *–, dat gisteren je/ze ziek was
–, that yesterday you/she ill were/was

First of all, this implies that Verb Second would be a transformation triggered by the absence of something, which is a weird assumption unless this is made to follow from general principles. It seems selfevident to me that the proposed verb has triggered the deletion of the phonological complementizer, and not the other way around. Secondly, Bach and Horn's assumption also implies that the verb is placed to the right of a Subject that has not been moved (compare (i)) or to the right of a constituent like *gestern* in (ii) which has been preposed:

(ii) Er sagte, gestern wäre he schon arriviert
He said, yesterday had (conj.) he already arrived

Koster (1975)a follows the same strategy as I do in positing a rule that will prepose the Subject in order to derive declaratives with the Subject in first position, so that the finite verb will always land at the same position.

Strong pronouns on the other hand behave like nonpronominal NPs in that they may be seperated from the complementizer by a suitable adverb, as can be seen in (26) and (27):

(26) a. --, dat jij/zij gisteren ziek was
--, that you/she yesterday ill were/was
b. --, dat gisteren jij/zij ziek was
--, that yesterday you/she ill were/was

(27) a. --, dat mijn oom gisteren ziek was
--, that my uncle yesterday ill was
b. --, dat gisteren mijn oom ziek was
--, that yesterday my uncle ill was

A description that moves the finite verb into complementizer position by means of a root transformation predicts that weak Subject pronouns in Dutch are obligatorily adjacent to the verb in yes/no-questions (see (28)), in interrogatives with a nonsubject in first position (see (29)) and in declaratives with a nonsubject in first position (see (30)). It is predicted as well that strong Subject pronouns and nonpronominal Subject-NPs may be seperated from the verb in yes/no-questions (see (31) and (32)), in interrogatives with a nonsubject in first position (see (33) and (34)) and in declaratives with a nonsubject in first position (see (35) and (36)). These predictions are confirmed by the following examples:

(28) a. Was ze gisteren ziek
Was she yesterday ill
b. *Was gisteren ze ziek?

(29) a. Waarom was ze gisteren ziek?
Why was she yesterday ill
b. *Waarom was gisteren ze ziek?

(30) a. Toch was ze gisteren ziek
Yet was she yesterday ill
b. *Toch was gisteren ze ziek

(31) a. Was zij gisteren ziek?
Was she yesterday ill
b. Was gisteren zij ziek?

(32) a. Was je oom gisteren ziek?
Was your uncle yesterday ill
b. Was gisteren je oom ziek?

(33) a. Waarom was zij gisteren ziek?
Why was she yesterday ill
b. Waarom was gisteren zij ziek?

(34) a. Waarom was je oom gisteren ziek?
Why was your uncle yesterday ill
b. Waarom was gisteren je oom ziek?

(35) a. Toch was zij gisteren ziek
Yet was she yesterday ill
b. Toch was gisteren zij ziek

(36) a. Toch was mijn oom gisteren ziek
Yet was my uncle yesterday ill
b. Toch was gisteren mijn oom ziek

Given the state of affairs observed it does not come as a surprise that additional minor facts about weak pronouns hold both for the position adjacent to the COMP in subordinate clauses and for the position adjacent to the finite verb in main clauses. Consider the following sentences where *hij* stands for the weak pronoun and *HIJ* for the strong one:

(37) a. *--, dat hij niet kan komen
--, that he not can come
b. --, dat ie niet kan komen
c. --, dat HIJ niet kan komen

(38) a. Hij wil niet komen
He wants not come
b. *Ie wil niet komen
HIJ wil niet komen

It is clear that the strong pronoun *HIJ* may occur both to the right of a complementizer in subordinate clauses and to the left of the finite verb in main clauses. The weak pronouns *hij* and *ie* however are in complementary distribution: *Hij* occurs to the left of the finite verb in root sentences and *ie* to the right of the complementizer in subordinate clauses. Given what we have seen above we can expect that *ie* and not *hij* can occur to the right of the preposed verb in main clauses, which is the case indeed:

(39) a. *Daarom wil hij niet komen
Therefore wants he not come
b. Daarom wil ie niet komen

The last phenomenon I want to deal with concerns two of the many different pronouns *er* in Dutch that roughly translate as *there*.[12] The constellation of facts I want to consider is somewhat more complicated than in the case of *hij* vs *ie*. First consider the *er* of Dutch *There* Insertion. This pronoun counts as a weak pronoun and so has to be adjacent to the complementizer or the preposed finite verb:

12. For an exhaustive study of the many uses of *er*, see Bech (1952).

(40) a. --, dat er gisteren al veel gasten vertrokken zijn
--, that there yesterday already many guests left have
b. *--, dat gisteren er al veel gasten vertrokken zijn

(41) a. Daarom zijn er gisteren al veel gasten vertrokken
Therefore have there yesterday already many guests left
b. *Daarom zijn gisteren er al veel gasten vertrokken

These facts are not surprising. Now consider the usage of the so-called quantitative *er*. This *er* has to cooccur with a NP which is empty but for its QP.[13] Compare the following sentences:

(42) a. --, dat hij er tien heeft gekocht
--, that he there ten has bought
b. *--, dat hij tien heeft gekocht
--, that he ten has bought

(43) a. --, dat het er negen zijn
--, that it there nine are
b. *--, dat het negen zijn

Now these quantified empty NPs can be Subjects too. But since they are indefinite and unspecific we may expect them to cooccur not only with quantitative *er* but also with the *er* of *There* Insertion, i.e. we expect quantified, empty Subject-NPs to move to the right. And that they do, witness (44):

(44) a. Er waren er gisteren nog vijftien over
There were there yesterday still fifteen left
b. *Er waren gisteren nog vijftien over

It is not possible to demonstrate the cooccurrence of quantitative *er* and the *er* of *There* Insertion with an example of a subordinate clause, witnesss (45):

(45) a. *--, dat er er gisteren nog vijftien over waren
--, that there there yesterday still fifteen left were
b. --, dat er gisteren nog vijftien over waren

Yet, we have to conclude from a comparison of (44) and (45) that there have been two *er*s underlyingly in (45) that have been collapsed by a rule of

13. Compare Blom (1977) and Bech (1952). *Er* also shows up in sentences like the following:

(i) Er zijn *er* die zeggen, dat dat niet kan
There are there who say, that that not is possible

Er-er Contraction.[14] It is important to note that the two *er*s may not be separated by an adverb, so that there is no way to force these pronouns to show up in a subordinate clause:

(46) *--, dat er gisteren er nog vijftien over waren

Consequently it is not possible to construct a variant of (44)a where *gisteren* shows up between the finite verb and quantitative *er*:

(47) *Er waren gisteren er nog vijftien over

Thus we may conclude that in a clause which contains both quantitative *er* and the *er* of *There* Insertion the latter has to be adjacent to the complementizer and the first to the latter. This sequence of elements will invoke *Er-er* Contraction, unless the Subject pronoun is preposed into COMP. And so, given the description of root sentences presented above, it is predicted that the two *er*s contract immediately to the right of the preposed verb in yes/no-questions (see (48)), in interrogatives with a nonsubject in first position (see (49)) and in declaratives with a nonsubject in first position (see (50)). These predictions are confirmed.

(48) a. *Waren er er gisteren nog vijftien over?
Were there there yesterday still fifteen left
b. Waren er gisteren nog vijftien over?

(49) a. *Hoeveel dagen geleden waren er er nog vijftien over?
Howmany days ago were there there still fifteen left
b. Hoeveel dagen geleden waren er nog vijftien over?

(50) a. *Volgens mij waren er er gisteren nog vijftien over
According to me were there there yesterday still fifteen left
b. Volgens mij waren er gisteren nog vijftien over

This concludes my discussion of Dutch root sentences. I have proposed a description which involves one Verb Preposing rule that moves the finite verb to the complementizer in root sentences plus two or one root transformations transferring a constituent into the leftmost position inside COMP. The latter rules are comparable to the cyclic rule of *Wh*-Movement

14. Independently motivated by the following set of examples:

(i) --, dat ik er *daar*$_i$ vijftien t_i van gekocht heb
--, that I there there$_i$ fifteen t_i of bought have

(ii) *--, dat ik er *er*$_i$ vijftien t_i van gekocht heb
--, that I there there$_i$ fifteen t_i of bought have

(iii) --, dat ik er vijftien van gekocht heb

For *daar/er ... van*, see Van Riemsdijk (1976)a. For an example of a contraction of three *ers* in a row, see example (162) in this paper.

that also moves a constituent, the *wh*-phrase, into the leftmost position inside COMP (see again (21)b and (22)b). Pending a discussion about the substitutive or adjunctive nature of Complementizer Attraction Rules there are two ways to formalize these rules. A substitution solution assumes the following base rules:[15]

(51) $\bar{S} \rightarrow \overline{COMP}_{\bar{\bar{X}}}$ S

(52) $\overline{COMP} \rightarrow (\bar{\bar{X}})$ COMP (V)

(53) COMP $\rightarrow \pm$ wh

Wh-Movement and the root transformations of the second set (see above) substitute the preposee for $\bar{\bar{X}}$. Verb Preposing substitutes the finite verb for the V inside $\overline{COMP}$.[16] On the other hand an adjunction solution will formalize *Wh*-Movement, Constituent Preposing and Verb Preposing as follows:

(54) *Wh-Movement*

COMP	-	W_1	-	$\bar{\bar{X}}$	-	W_2
+wh				+wh		
1		2		3		4
3+1		2		e		4

15. I admit that $\overline{COMP}$ is a somewhat embarrassing novelty, but I prefer rule (52) over Chomsky's rule (i) (Chomsky 1973):

(i) COMP $\rightarrow$ (P) NP $\pm$ wh

I think the following assumption is a natural one: Every word must be exhaustively dominated by a preterminal node. Now, languages like Dutch and many others (optionally) retain their complementizers after *Wh*-Movement. Such words are separate from the preceding constituent and so need their own preterminal. Compare (21)b and (ii):

(ii) de jongen aan wie (dat) ik die plaat geleend heb
the boy to whom (that) I that record lent have

16. In fact, $\bar{\bar{X}}$ may be inaccurate. Maximal phrases like NP and AP do prepose indeed, but *gelachen* in (i) and *dansen* in (ii) do not have to represent $\bar{\bar{X}}$s:

(i) Gelachen heb ik niet
Laughed have I not

(ii) Dansen kan ie niet
Dance can he not

(iii) Weg ga ik niet
Away go I not

(55) *Constituent Preposing*[17]

COMP	- W_1 -	$\bar{\bar{X}}$	- W_2
—wh		—wh	
1	2	3	4
3+1	2	e	4

(56) *Verb Preposing*

COMP	- W_1 -	V	- W_2
		+tense	
1	2	3	4
1+3	2	e	4

It is not clear whether the features employed in (54) and (55) are necessary. Envisageable is a filter mechanism as proposed in Chomsky (1973). It is tempting to collapse *Wh*-Movement and Constituent Preposing in view of the complementarity of their formalizations (however see n. 17) but that cannot be right because *Wh*-Movement is a cyclic rule and Constituent Preposing is a root transformation. Thus, their applicability conditions differ accordingly. *Wh*-Movement may 'violate' Subjacency, the Subject Condition and the Propositional Island Constraint (Tensed S Condition), whereas Constituent Preposing may not.[18] Compare (57) with the next examples:

(57) a. Wie heeft Jan gezien?
Whom has John seen

b. Wie zei je, dat Jan gezien had?
Whom said you that John seen had

(58) a. Jan heeft ie gezien
John has he seen

b. *Jan zei Piet, dat hij had gezien
John said Pete that he had seen

(59) a. Gelachen heeft ie niet
Laughed has he not

b. *Gelachen zei Piet, dat hij niet had
Laughed said Pete that he not had

I return to this in the next subsection. But these observations suffice as an argument against collapsing *Wh*-Movement and Constituent Preposing in whatever form. Of course the transformations (54)-(56) are complemented by the following base rules:

17. Here the same objection applies as the one in fn. 16.

18. cf. Chomsky (1973) and (1977), and Van Riemsdijk (1976)b, who makes similar remarks about Dutch. However see my selfcritical remarks in Appendix II.

(60) $\bar{S} \rightarrow$ COMP S

(61) COMP $\rightarrow \pm$ wh

Furthermore, my description presupposes that under either description, whether substitutive or adjunctive in nature, root constructions are defined in terms of applications of the relevant root transformations. I refer to the pertinent remarks in subsection 3.1. above. Root constructions are defined upon those structures that are defined in terms of base rule and cyclic rules themselves. Questions are brought about by the application of Verb Preposing to structures with an underlying initial Q-complementizer.- This is the unmarked case. Declaratives are brought about by application of Verb Preposing and Constituent Preposing to structures with an underlying *dat*-complementizer. This, again, is the unmarked case. Echo questions, which constitute one set of marked questions, are intonational variants of unmarked declaratives.

This approach has the advantage that we can easily generate marked root constructions. Ideally, there are three marked variants for declarative sentences: Either one of the two root preposing rules is not applied or both rules are not applied. Questions would have only one variant: nonapplication of Verb Preposing. Above I have presented one example of a marked declarative: a Topicalization structure to which Verb Preposing has not applied. Here are some other examples:

(62) a. Gelachen dat we hebben (i.e. (16))
Laughed that we have

b. Lang dat ie is
Tall that he is

c. Een platen dat ie heeft
A records that he has
'So many records he has'

The pertinent structure is used in order to express one's indignation, surprise, or whatever, about the quantity or quality of something.

Another marked declarative would be a structure to which Constituent Preposing does not apply, unlike Verb Preposing which does apply. Examples of such a structure can be easily found in Dutch. The pertinent structure is used for several purposes. First of all, there is a narrative style in Dutch, mainly in the spoken language, I think, which makes use of verb initial declaratives:

(63) Ging ik laatst naar De Swart. Raakte ik aan de praat met
Went I to De Swart's. Got I into a chat with
die advokaat, die dronkelap.
that lawyer, that alcoholic

Such sentences are extremely effective as an opening for a story. Yet similar sentences have special functions in more formal language, if combined with another independent clause of the unmarked type. For instance, a verb initial declarative followed by an unmarked declarative constitutes a minimal text that expresses some sort of opposition:

(64) a. Was de vorige lezing al moeilijk, van dit verhaal zul
Was the last lecture already difficult of this talk will
je helemaal niets meer begrijpen.
you totally nothing anymore understand

b. Stortte Jan zich in de muziek, Aukje was
Threw John himself into music, Aukje was
helemaal wild van poëzie
completely crazy about poetry

And my guess is that the so-called conditional clauses to which Verb Preposing is applied are verb initial declaratives (see n. 3).

Although there are all sorts of *that*-clauses that are independently used, I hesitate to call them marked declaratives to which no root transformation has applied at all. On the other hand the case of marked questions that are defined by nonapplication of Verb Preposing seems to me to be attested. Such sentences, that are pronounced with question intonation, express the dubitative:

(65) a. Gewoonlijk is hij niet te laat. Maar of hij vandaag nog
Usually is he not late. But whether he today yet
komt? (Dat weet ik niet/Daar ben ik niet zeker van.)
comes. (That know I not/There am I not sure about.)

b. Er is suiker in de erwtensoep gedaan.
There has-been sugar in the peasoup put.
Maar wie (of) het gedaan heeft? (Ik heb geen
But who (whether) it done has. (I have no
idee/Ik zou het niet weten.)
idea/I would it not know.)

My main reason for calling these sentences marked questions derives from the fact that these structures do not need the tags I have added within parentheses, which is in accordance with the fact that not all of these tags are possible main clauses, witness (66):

(66) *Wie (of) het gedaan heeft, heb ik geen idee.
Who (whether) it done has, have I no idea

whereas all of these tags are possible independent sentences. This counterweighs the observations that several of these tags could be main clauses of left dislocation structures like in (67):

(67) Of hij vandaag nog komt, dat weet ik niet

However, the *of*-clause in (67) does not need a question intonation.[19]

As I mentioned above, a description which defines sentence types in terms of application viz. nonapplication of root transformations, is useful both for the substitutive and for the adjunctive approach of root phenomena. Nothing follows as far as the substitution solution is concerned. The theory requires that $\overline{\overline{X}}$ and V not be generated in the base in the case that they are not filled during the transformational derivation, otherwise the pertinent derivations are filtered out. That is why $\overline{\overline{X}}$ and V are optional daughters of $\overline{COMP}$ (compare (52)). On the other hand there is an important consequence for the adjunctive approach. A description which decides which transformations define which root structures enables us to set an upper bound for the number of complementizer attraction transformations that are applied to one clause. This description will restrict the number of root transformations to two or less, and will tell us which combinations of root transformations are allowed. Thus the transformational component plus the relevant stipulations about (non)-applications of root rules has the same filter function as does base rule (52) of the substitutive approach. There will be no double Topicalization, for instance. It cannot be denied, though, that the adjunctive approach does not explain why the actual combinations are chosen and why there are no combinations like double Constituent Preposing or double Constituent Preposing plus Verb Preposing. This problem is a very important question, which I cannot answer. This question cannot be used against the adjunctive approach, however, because the same question applies to base rule (52) of the substitutive approach: Why that rule and not another one?

3.2.2. Some additional data about German

After this long excursus about Dutch I have relatively little to say about German. I assume that a description similar to the one proposed for Dutch can be applied to German. German word order is by no means equivalent to Dutch word order, but there are similarities: German is a SOV-language which moves the finite verb to first or second position in root sentences. Yes/no-questions are verb first sentences: interrogatives and declaratives put the verb in second position. All other verbs stay in VP-final position. I have not studied German marked root structures in great detail, but I do know that dubitative questions without Verb Preposing (compare the

19. For these sentences see Koster (1975)b.

Dutch examples in (65)) are frequently used.[20] German does not retain the Q-complementizer *ob* in *wh*-clauses (compare (68)), but that does not have to prevent us from assuming that basically in German the same root transformations are used as in Dutch, namely Constituent Preposing and Verb Preposing (compare (55) and (56)), and that there too the complementizer is involved.

(68) --, warum (*ob) er das geschrieben hat
--, why (*whether) he that written has

(In fact, combinations like *warum daß* 'why that' instead of **warum ob* are known from substandard German.) And also in German the syntax of weak pronouns confirms the description proposed.

The sets of German weak and strong pronouns are nearly overlapping. The strong set contains i.a. *ich* (I), *du* 'you (sing.)', *er* 'he', *sie* 'she', *das* 'that', *wir* 'we', all of them being nominative, and *mir* 'me (dat.)', *dir* 'you (sing., dat)', *dich* 'you (sing., acc.)', *ihm* 'him (dat.)', *ihn* 'him, (acc.)'. The weak set contains the same forms but adds *es* 'it' and leaves out *das*. There are some enclitic forms, but they do not concern us here. Weak Subject pronouns must be adjacent to COMP. In this respect there is no difference between German and Dutch. But these languages do differ in the way they deal with weak object pronouns. In Dutch weak Object pronouns have to be adjacent to the subject NP, whether that NP is nominal or pronominal:

(69) a. *--, dat Karel zonder enig probleem het kon oplossen
--, that Charles without any problem it could solve
--, dat Karel het zonder enig probleem kon oplossen

(70) *--, dat ie zonder enig probleem het kon oplossen
--, that he without any problem it could solve
--, dat ie het zonder enig probleem kon oplossen

In German weak Object pronouns have to be adjacent to the Subject NP, if that NP is a weak pronoun itself. If the Subject contains a noun or a strong pronoun, however, weak Object pronouns preferably occur immediately to the right of the complementizer:

(71) a. --, daß ihm Karl ein Buch geschenkt hat
--, that to-him Charles a book given has
b. --, daß Karl ihm ein Buch geschenkt hat

(72) a. --, ob es Karl dem Johann geschenkt hat
--, whether it Charles to-John given has
b. --, ob Karl es dem Johann geschenkt hat

20. Furthermore, compare Appendix I.

(73) a. --, daß es ihm der Johann schon gesagt hat
--, that it to-him John already said has
b. --, daß der Johann es ihm schon gesagt hat

(74) a. --, daß sich einst die Intellektuellen mit der Armee vereinen werden
--, that themselves once the intellectuals with the army unite will
b. --, daß einst die Intellektuellen sich mit der Armee vereinen werden

It does not come as a surprise that in German yes/no-questions, in German interrogatives with a nonsubject in first position and in German declaratives with a nonsubject in first position weak Object pronouns have to be adjacent to the Subject or to the preposed verb. This is what is predicted by a description that puts the preposed verb in complementizer position:

(75) a. Werden sich diese Leute verteidigen oder nicht?
Will themselves these people defend or not?
b. Werden diese Leute sich verteidigen oder nicht?

(76) a. Warum würden sich die Intellektuellen mit der Armee vereinen?
Why would themselves the intellectuals with the army unite?
b. Warum würden die Intellektuellen sich mit der Armee vereinen?

(77) a. Gestern hat ihm Karl ein Buch geschenkt
Yesterday has to-him Charles a book given
b. Gestern hat Karl ihm ein Buch geschenkt

(78) a. Gestern hat es ihm der Johann schon gesagt
Yesterday has it to-him John already said
b. Gestern hat der Johann es ihm schon gesagt

Finally, there is one little fact about the behaviour of the weak, indefinite Subject pronoun *es* which generally translates with *there*, because it is the German counterpart of the *there* of *There* Insertion in English. Compare the following example:

(79) Es standen zwei Bäume im Garten
There stood two trees in-the garden

This *es* is also used in impersonal passives:

(80) Es wurde gelacht im Ratskeller
There was laughed in-the rathskeller

This *es* is probably the same as the expletive *es* used in passive structures like the following one:

(81) Es wurde behauptet, daß der Strauß ein Faschist sei
There was contended that Strauß a fascist is (conj.)

For ease of reference I have called the *es* of sentence (79)-(81) the indefinite *es*. It must be distinguished from the definite pronoun *es* (in (82)) and weather-*es* (in (83)):

(82) Es ist eigentlich idiotisch (also: Das ist...)
It is actually idiotic

(83) Es hat wieder gehagelt
It has again hailed

For ease of reference I subsume both definite (referential) *es* and weather-*es* under the name 'definite *es*'.

Syntactically, definite and indefinite *es* behave differently. Indefinite *es* deletes, if it is preceded by a complementizer, which is the usual word order in subordinate clauses, because *es* is a weak pronoun (compare (84)). Definite *es* in the same position does not delete (compare (85)):

(84) a. --, dass (*es) voriges Jahr noch zwei Bäume im
--, that (*there) last year still two trees in-the
Garten standen
garden stood

b. --, ob (*es) im Ratskeller gelacht wurde
--, whether (*there) in-the rathskeller laughed was

c. --, daß (*es) behauptet worden ist, daß der Strauß
--, that (*there) contended been has that Straus
ein Faschist wäre
a fascist was (conj.)

(85) a. --, ob *(es) eigentlich nicht idiotisch wäre
--, whether *(it) actually not idiotic was (conj.)

b. --, daß *(es) wieder gehagelt hat
--, that *(it) again hailed has

Of course it is predicted that indefinite *es* will delete in yes/no-questions, in interrogatives (indefinite *es* does not have a *wh*-form) and in declaratives with nonsubjects in first position, whereas definite *es*, when retained in its original Subject position in root sentences, will not delete. These predictions are confirmed:

(86) a. Standen (*es) voriges Jahr noch zwei Bäume
Stood (*there) last year still two trees
im Garten?
in-the garden?

b. Wurde (*es) gelacht im Ratskeller?
Was (*there) laughed in-the rathskeller?

c. Wurde (*es) behauptet, daß der Strauß ein Faschist wäre?
Was (*there) contended that Strauß a fascist was (conj.)

(87) a. Ist *(es) idiotisch?
Is *(it) idiotic?

b. Hat *(es) gestern gehagelt?
Has *(it) yesterday hailed?

(88) a. In welchem Garten standen (*es) voriges Jahr noch zwei Bäume?
In which garden stood (*there) last year still two trees?

b. Wo wurde (*es) gelacht?
Where was (*there) laughed?

c. In welchem Blatt wurde (*es) behauptet, daß der Strauß ein Faschist wäre
In which paper was (*there) contended that Strauß a fascist was (conj.)

(89) a. Warum wäre *(es) idiotisch?
Why would-be *(it) idiotic?

b. Wann hat *(es) gehagelt?
When has *(it) hailed?

(90) a. Voriges Jahr standen (*es) noch zwei Bäume in unserm Garten
Last year stood (*there) still two trees in our garden

b. Im Ratskeller wurde (*es) gelacht
In-the rathskeller was (*there) laughed

c. In irgendeinem sozialistischen Blatt wurde (*es) behauptet, daß der Strauß eigentlich ein Faschist wäre
In some socialist paper was (*there) contended that Strauß actually a fascist was (conj.)

(91) a. Meines Erachtens ist *(es) idiotisch
In my opinion is *(it) idiotic

b. Gestern has *(es) gehagelt
Yesterday has *(it) hailed

Thus we may conclude that the occurrence of indefinite *es* in sentence-initial position in declarative sentences, although being a root phenomenon, does not need a special root transformation for inserting it in front

of a preposed verb,[21] but can be generated via the interaction of Constituent Preposing, a root transformation that is independently motivated, and *Es* Deletion, a cyclic rule.[22] More will be said about the ordering of these rules in section 4.1.

3.2.3. Conclusion and questions

In sum: It has been shown that Dutch and German root phenomena can be described in terms of movement rules that transport constituents to COMP. Now one may wonder whether it is a mere accident that in the grammars of German and Dutch COMP is the landing site for preposing rules. Or, to put it this way, how can we constrain Grammar such that root transformations that prepose constituents will necessarily move such constituents into COMP? This is a valid question, since it is always possible to construct other grammars than the one proposed here that would account for the acts. One example of such a grammar is the one which I shortly talked about in the first paragraphs of this subsection, where I used it to contrast it with the grammar I wanted to propose. This grammar does not necessarily violate the conditions for root transformation of Emonds

21. Breckenridge (1975) argues for such a rule. I think her arguments against *Es* Deletion are pretty weak. They seem to be based upon the feeling that something is wrong if an element is generated in all clauses and then deleted everywhere except when it is to the left of a preposed verb. I cannot see what is wrong about that. Furthermore, how does she want to account for the empty subject NP position in (84)b, (86)b, (88)b and (90)b? By means of a special interpretation rule I suppose. In that respect Breckenbridge's description is a notational variant of the deletion approach. Furthermore, one may wonder how Breckenbridge's postcyclic rule of *Es* Insertion is formulated. Is *es* a dummy without any categorial status? There is no reason for assuming that transformations inserting lexical material are any different from 'normal' lexical insertions: A preterminal is required. And that the necessary category will be NP is clear from a sentence like (80). *Es* is a subject filler for intransitive passives, since there is no object NP to fill the Subject NP with.

22. In my discussion of the different *es*es in German I have excluded the expletive *es* of sentences like:

(i) Es ist möglich, daß er Schriftsteller ist
It is possible that he writer is

The behavior of this *es* is not totally clear to me: Deletion to the right of the complementizer seems to me to be optional, not required:

(ii) Dennoch ist (es) möglich, daß er Schriftsteller ist
Yet is (it) possible, that he writer is

(1976), ch. 1.[23] It needs all sorts of extra conditions for the pronoun rules I talked about, but that can be done. However, a simple evaluation will show that the grammar using COMP for root transformations is more highly valued than the grammar I am now talking about. So, it would be desirable to have a theory which enforces us to describe root preposing rules as Complementizer Attraction Rules.

3.3 The function of COMP in root transformations

Emonds (1976) defines root transformations as follows (p. 3):

(92) ROOT TRANSFORMATION: A transformation (or a transformational operation, in the case of a transformation performing several operations) that moves, copies or inserts a node *C* into a position in which *C* is immediately dominated by a root *S in derived structure* is a "root transformation" (or a root transformational operation).

Suppose we regard English root preposings as substitutions of some constituent for COMP and SAI as a permutation of NP and AUX, immediately to the right of COMP. In that case condition (92) is fulfilled. However, it is also possible to regard SAI as another Complimentizer Attraction Rule and we have seen that Verb Preposing in Dutch and German has to be a Complementizer Attraction Rule. So, unless one wants to do some hocus-pocus by somehow substituting two preposees for one complementizer, a base rule like (52) seems to be justified. And the definition of root transformations has to be changed accordingly. Therefore I propose the following definition:

(92)′ *Root transformation*: A transformation such that its landing site is immediately dominated by a root S or the COMP of that S.

Now Emonds (1976) contains two competing proposals for expanding Ss. The consequences of these proposals under definition (92)′ are quite different. First consider the older proposal which is most frequently used for drawing trees in Emonds (1976):

(93) S → COMP NP AUX VP (see p. 206)

23. Of course, adjunction of V to the first constituent would not put V immediately under the root S. But we might say that the landing site is immediately under S, if we assume S → COMP NP VP as a base rule for Dutch. Something along these lines must be said about adjunctions to COMP and about substitutions in COMP (or $\overline{\text{COMP}}$). In the latter case we have to disregard COMP (or $\overline{\text{COMP}}$).

Both definition (92) and definition (92)′ allow a lot, if this is the base rule for expanding Ss in English. Let us assume that adjunction is defined as sister adjunction. In that case, although something would have to be done about the definition of landing site in (92)′, nine different landing sites are possible: one to the left of COMP, three between the respective constituents, one to the right of VP, and the four constituents themselves. Furthermore, it is predicted that a root transformation raising a NP out of a complement towards the root Subject-NP, is a possible rule, which I think is wrong prediction. Of course, this can be countered by assuming that root transformations, structure-preserving rules and local transformations are properly seperated in that no rule of one set will exhibit features of rules belonging to the other sets. In that case noncyclic Complementizer Attraction Rules cannot be substitutions. If one wants to leave open the option of root substitutions this assumption will not do. Besides that the number of possible landing sites is too large. A first step to reduce their number would be assuming that adjunctions are defined as chomsky-adjunctions (following Chomsky 1975). In that case there are four possibe landing sites left: the four constituents of (93) themselves. However, VP does not seem to be a landing site. Root movements are concentrated around the front of a sentence, and Tag Formation, which might serve as an argument for calling VP a landing site of sorts, is certainly not a transformation. As for NP and AUX, only if SAI is defined as a permutation of NP and AUX would there be a reason for calling these constituents landing sites, albeit strange landing sites: there is no constituent to land at. Since a permutation formulation of SAI is not necessary, there is no reason for regarding NP, AUX and VP as landing sites at all. And we are left with the COMP. However it does not follow from either (92) or (92)′ that COMP is the sole landing site, as long as we maintain base rule (93). Here Bresnan's proposal for describing the expansion of the S (Bresnan (1970) and (1972)), that is also considered by Emonds (1976), comes into play. We assume that $\bar{S}$ is the initial category and is expanded as follows:

(94)a. $\bar{S} \rightarrow$ COMP S ...
b. S → NP AUX VP

Now we are left with two root landing sites: COMP and S. I shall not go into the question of how S can be excluded as a possible landing site. S does not seem to be a cyclic landing site either. So, there will be independent reasons for excluding S.

The argument given above can also be found in Williams (1974), ch. 4, section 2 (introduction). Also Williams notes that base rule (93) makes many more positions available than does base rule (94)a. However he notes

some problems with Intraposition, a root transformation in Emonds (1970) substituting an extraposed S for the subject-NP. I shall come back to that later. Williams's statements about root transformations are embedded in a larger theory about applicational domains and rule ordering in syntax. His central thesis runs as follows:

(95) Wherever in a language there is a phrasing internal to cyclic nodes, the transformations of that language can be partitioned and the partitions labeled with phrase nodes such that no rule that is a member of partition X ever need analyze material outside of phrase X, and for all partitions Y bigger than but including X, the rules of X are ordered before the rules of Y. (Williams (1974), ch. 1, 6.0.)

Williams accepts rule (94)a and (94)b. Thus Passive, which has to analyze a subject NP and so, is a S-rule, has to be ordered before *Wh*-Movement, which is a $\bar{S}$-rule because it has to analyze COMP. Similarly, Dative, if that is a syntactic rule, will be ordered before Passive because it has to analyze material inside the VP. Principle (95) generalizes strict cyclicity for all rules inside one cycle.[24] In fact, ordering evidence of the sort that is required for (95) is scanty. Suppose Dative is an interchange of two NPs via double substitution. In that case, the ordering 1. Dative 2. Passive will not be one of necessity. Either ordering, Dative before Passive or Passive before Dative, will do. Since Dative is an optional rule and nonapplication of Object Preposing will cause the filtering out of the pertinent derivation, the former ordering will derive both (97)a and (97)b from (96), whereas the latter ordering yields (97)b:

(96) COMP $[_s$ * PAST be + en give a book to John]
(97) a. John was given a book
b. A book was given to John

Similarly, the ordering 1. Passive 2. *Wh*-Movement is not necessary if Passive and *Wh*-Movement do not analyze the same material. And if they do, general requirements for NP-movements, trace theory and the like, will enforce the ordering of Passive before *Wh*-Movement. Actually, the best argument in favor of (95) I know of is not discussed by Williams. I mean the ordering of Passive before SAI. A free ordering of these rules would also derive (98), an ungrammatical interrogative:

(98) *In which paper you have been criticized for your statemtents?

Trace theory cannot impose this order upon the pertinent rules. But even here general considerations about the definition of sentence types of the

24. Chomsky, class lectures Fall 1976.

kind I presented in the preceding subsection can destroy the evidence. So, there does not seem to be any independent evidence in favor of principle (95), but note that there is no clear counterevidence either. And since theoretical considerations of a different type can impose orderings where these are necessary, we might claim that maybe principle (95) is not an axiom of the theory but that it will be a theorem of the theory for those cases where an ordering is required in order to derive a specific sentence. Therefore I will not pay any attention anymore to problems of rule ordering. I will concentrate upon another aspect of subcyclic strict cyclicity, i.e. the relationship between domain statement and rule application. There is something to be gained from a closer look at the relationship between material analyzed by a rule and material involved in a transformation.

According to Williams all root transformations are $\bar{S}$-rules and so have to analyze material at $\bar{S}$-level. While discussing SAI he hits a little problem which he does not say very much about:

> "The only evidence we have given that SAI is an $\bar{S}$ rule is that the statements of its affective environment includes the complementizer; nothing need be moved into or out of the complementizer. A stronger position may be taken — SAI actually moves the auxiliary into the complementizer — hence a structural change takes place at the $\bar{S}$ level. (Williams (1974), ch. 4, section 2.1.)

We can generalize the problem we meet here as follows: If a rule analyzes a constituent C which is properly contained in domain X and not in domain Y which is properly contained in domain X too, there is no reason for assuming that this implies that C must be involved in the application of the pertinent rule. Principle (95) does not impose that restriction. Williams makes an ad hoc decision for the case of SAI, but he does not formulate a principle that might decide this case. However, such a principle is easy to formulate. I propose the following definition of 'X-domain rule':

(99) A rule R_i is a X-domain rule *iff* the structural index of R_i contains a constant C_k such that
   a. C_k is properly contained in X and
   b. there is no Y such that X properly contains Y and Y properly contains C_k and
   c. C_k is satisfied by a factor changed by the rule.

This definition of the relationship between constants that are analyzed by and involved in a rule and the domain of that rule ensures the subcyclic strict cyclicity that underlies (95).[25] Now root preposings will move a

25. Provisions must be made for the substitution approach of root transformations (cf. base rule (52)). COMP may not count as a daughter of $\bar{S}$ or S. Compare the reformulation of (92).

constituent into complementizer position, provided root transformations are $\bar{S}$-rules. Nice though this result may be, we may ask whether (99) guarantees that root preposing rules always choose COMP as a landing site. The answer is no. If one prefers base rule (93) over base rule (94)a, definition (99) allows four landing sites for a root transformation: COMP, NP, AUX, and VP. And so we are back at the problem I started this subsection with, the problem Williams tried to evade by assuming the distinction between S and $\bar{S}$. And furthermore we are back at the problem Williams (1974) noted as regards SAI, since now a permutation of NP and AUX is within the range of possibilities again. Therefore it is important to establish whether the initial base rule for English must be (94)a or not. That will be easier than considering the question of whether SAI in its familiar formalization mentioning both COMP and NP and AUX is an admissible permutation. Nor do I want to go into the question of whether permutations are admissible at all. These questions go way beyond the goals of this paper and would give rise to all sorts of technicalities, which is quite boring.

It has been noticed that usually movement rules 'upgrade' the constituents they transfer (cf. Chomsky 1976a, pp. 106-110), in that they move a constituent closer to the root of the sentence. Suppose we define 'upgrading' in terms of superiority (for this term: Chomsky 1973), which is quite natural an interpretation:

(100) A rule R_i upgrades a constituent C_k *iff* C_k in the output of R_i is superior to its trace.[26]

It is assumed that every constituent, whether it is a NP or not leaves a trace. This assumption is not counterintuitive. But counterintuitive might be the assumption that the relation that obtains between a preposed V or PP and its trace is the same as the anaphoric relation that holds between a NP and its trace (compare Chomsky 1976a, p. 110). The latter assumption would imply that all movement rules are subject to trace theory. Although I think something could be gained from such a hypothesis, I take a weaker stance and adopt Chomsky's definition of the Upgrading Principle:[27]

26. Compare n. 25.

27. If all movement rules were subject to trace theory, every movement rule would have to front and upgrade its movee, unless the relevant trace is wiped out. Therefore, preposing rules like Constituent Preposing and Verb Preposing, but also Negated Constituent Preposing in English, would be in accordance with that theory: All the pertinent rules front and upgrade a constituent. But again SAI would be the weak spot in the theory: In order to upgrade AUX one has to assume either that COMP is a daughter of $\bar{S}$ or that AUX is a daughter of the VP or the Predicate Phrase. In the latter

(101) Movement rules may upgrade, but they cannot downgrade unless the position they vacate is filled by a later rule, or unless the item downgraded is not a noun phrase. (Chomsky 1976a, p. 110)

I interpret upgrading as specified in definition (100). The corresponding definition of 'downgrading' requires that the trace of C_k be superior to C_k itself. The Upgrading Principle under the interpretation intended can be used as a criterion for the choice between base rule (93) and (94)a. Once we have found a rule that enables us to choose for (94)a, the definition of domains, i.e. (99), guarantees that AUX moves into COMP, since then COMP and only COMP will be the landing site for root preposings. What we need is a rule that moves NPs across variables into COMP and so has to move Subject NPs too. Such a rule cannot use base rule (93), since a movement of a sister of COMP into COMP does not count as upgrading, according to (101) + (100). On the other hand base rule (94)a does not conflict with the Upgrading Principle.

The obvious candidate for the choice between (93) and (94) a is *Wh*-Movement. This rules moves constituents like AP and PP, but also NP, across a variable. And a Subject-NP is one of the possible *wh*-phrases. Note that adjunction of a *wh*-phrase to the Subject NP is excluded by the Upgrading Principle. So the sole landing site left is COMP. This is the constellation of facts we need: a rule moving over a constituent, which may be the Subject-NP, a sister of COMP, the landing site of the rule. Thus (93) is rejected and (94)a is chosen as the base rule for English and in fact for any language that fronts *wh*-phrases, i.a. Dutch and German. And by (99) we know that any root preposing rule in such a language must move the pertinent constituent to COMP.[28]

Now that it has been established that the theory can be constrained so that all root preposing rules are Complementizer Attraction Rules, one may wonder whether this hypothesis is also applicable to the other root phenomena as discussed by Emonds (1976). Therefore, the following

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case COMP is not necessarily involved in SAI. However, it can be shown that the upgrading and fronting characteristics of root transformations in English, Dutch and German can be made to follow from Chomsky's Upgrading Principle and Williams's theory of applicational domains. Therefore, I take a weaker stance in this paper and adopt Chomsky's definition of the Upgrading Principle.

28. I do not want to exclude the possibility of there being more landing sites at $\bar{S}$ level. Furthermore, I would like to add that, in so far as I can see, this argument for the S-$\bar{S}$ distinction based upon *Wh*-Movement and the Upgrading Principle is the first theoretical argument in favor of that distinction after Bresnan's Right Node Raising argument and related arguments in Bresnan (1970) and (1972).

section will briefly deal with French (section 3.4.). The subsequent section 3.5. will present an extensive discussion of the pertinent phenomena in English.

3.4. Rules moving finite verbs in French

The hypothesis outlined above makes certain predictions for French. This language has a rule of *Wh*-Movement and so its grammar must contain base rule (94)a. Now there are two root phenomena in French that are strikingly similar to SAI in English. Emonds (1976) discusses these rules at pp. 202 and 203 of his book. The observations he owes to Kayne. The first rule Kayne calls Subject-Clitic Inversion. This rule applies in root sentences whenever a *wh*-element or some other suitable trigger is present to the left of the Subject-clitic and the first (finite) verb in the verbal complex. Some examples taken from Emonds are:

(102) a. Quand parlerez-vous à Jean?
When will-talk-you to John?

b. Ne s' est-il pas souvenu de nous?
Not himself has-he not remembered of us?
'Didn't he remember us?'

c. Vous y ont-ils amenés à temps?
You there have-they brought in time?
'Did they bring you there in time?'

A more accurate name for this transformation may be Subject-Clitic $\overline{V}$ Inversion. $\overline{V}$ is a category used by Emonds (1976) that dominates the verb proper and its proclitic companions. Examples of a preposed verb accompanied by clitics can be found in (102)b and c. Subject-Clitic $\overline{V}$ Inversion looks like SAI, but there are also similarities with Dutch and German Verb Preposing. The feature that Subject-Clitic $\overline{V}$ Inversion shares with SAI is the pseudolocal nature of the process involved. And the fact that both auxiliaries and main verbs can move under Subject-Clitic $\overline{V}$ Inversion is a property shared by this rule with West Germanic Verb Preposing. The rule cannot be local since its application is dependent upon the presence of certain material outside the sequence 'Subject-clitic Verb'. And it cannot be structure-preserving either since there is no clitic or NP position between the auxiliary and the main verb (compare (102)b and c). For some reason or another Emonds took only one possible technical variant of the pertinent rule into consideration, i.e. movement of the Subject-clitic, probably because his assumption of there being only one position inside COMP to be filled prevented him from assuming that $\overline{V}$ moves into complementizer position — since that position can be taken by

a *wh*-phrase (compare (102)a). Since we know from the analysis of German and Dutch in section 3.2. that that does not constitute a real problem, I would like to propose the following formalization:[29]

(103) *Subject-Clitic $\bar{V}$ Inversion*

COMP	-	NP	-	$\bar{V}$	-	X
		+pro				
1		2		3		4
1+3		2		e		4

An objection to the effect that clitics are some sort of affixes and so would be orphaned after the application of this transformation is not strong enough a reason for rejecting rule (103). Confirming evidence for my hypothesis can be found in Dubuisson and Goldsmith (1976). These authors note that many Subject-clitic inversion constructions have variants without Subject-Clitic Inversion (terminology theirs) in which a complementizer shows up (generally *que* 'that', sometimes *si* 'whether, if'). This observation does not apply to yes/no-questions, but it does to interrogatives:

(104) a. Comment dit-il, qu'il s'appelle? (D&G (14))
How says-he that-he is called?
b. Comment qu'il dit qu'il s'appelle?
How that-he says that-he is called?

Similarly for parentheticals (see (105)), certain preposed adverbs (see (106) and (107)), certain concessives (see (108)) and exclamatives (see (109)):

(105) a. Benoit a un nouvel ami, dit-elle (D&G (17))
Benoit has a new friend says-he
b. Benoit a un nouvel ami, qu'elle dit
Benoit has a new friend that-she says

(106) a. A peine était-il parti, Marie arrivait (D&G (18))
Hardly had-he left, Mary arrived
b. A peine s'il était parti, Marie arrivait
Hardly if-he had left, Mary arrived

29. This formalization of Subject-Clitic $\bar{V}$ Inversion presupposes that in the case of Complex Inversion (compare (i)) the nonprominal Subject phrase is not in Subject position:

(i) Pourquoi *Jean*$_i$ est-*il*$_i$ parti?
Why John$_i$ has he$_i$ left?
'Why did John leave?'

Kayne (1982) has taken up and improved this idea that was implicit in the original version of this paper.

(107) a. Peut-être préfèrait-elle l'oublier (D&G (20))
Maybe preferred-she him-forget
b. Peut-être qu'elle préfèrait l'oublier
Maybe that-she preferred him-forget

(108) a. Si grande soit-elle, elle n'atteindra pas
So tall is (subj.)-she she not-will-reach not
la branche (D&G (23))
to the branch
b. Si grande qu'elle soit, elle n'atteindra pas
So tall that-she is (subj.), she not-will-reach not
la branche
to the branch

(109) a. Mais est-il grossier! (D&G (28))
But is-he rude!
b. Mais qu'il est grossier!
But that-he is rude!

Dubuisson and Goldsmith conclude that Subject-Clitic Inversion can be formalized as follows:

(110) CL [$_{VP}$ V (OPT)
1 2
e 2+1

Furthermore, they claim that this rule is independent from the preposing rules and the rule of Complementizer Deletion. Therefore, if I understand their claim correctly, they contend that Complementizer Deletion and Subject-Clitic Inversion are not related, i.e. independent processes. This contradicts the observational conclusion we may draw from the examples Dubuisson and Goldsmith present, namely: *If* Subject-Clitic Inversion occurs *then* the complementizer is absent. The converse does not hold, because in a sentence like *tu manges* 'you are eating' the complementizer is absent while Subject-Clitic Inversion does not apply. This relationship is easy to formalize by means of the rule of Subject-Clitic $\bar{V}$ Inversion formalized in (103) and subsequent deletion of the complementizer triggered by the preposed $\bar{V}$. This ordering is enforced by the Counter-deletive Ordering Principle which I will introduce in section 4.1.

I would like to propose a similar analysis for the second root transformation discussed by Emonds (1976), i.e. the rule of Affirmative Imperative Inversion (terminology Emonds's). This rule interchanges the verb proper and its clitics in affirmative imperatives. Some examples taken from Emonds (1976):

(111) a. Donnez-moi ces cigares!
Give-me those cigars!
b. Conduisez-les-y dans mon auto
Drive-them-there in my car

There is no inversion in negative imperatives. Compare:

(112) a. Donne-le-moi
Give-it-(to) me
b. Ne me le donne pas
Not (to) me it give not

The root status of Affirmative Imperative Inversion need not be argued for at length. The rule applies to root sentences only. It cannot be a local rule, since the inversion is dependent upon material outside of the sequence 'Clitic — Verb'. It cannot be a structure-preserving rule either, because Direct Object clitics may not move to the Direct Object position, witness the following examples taken from Emonds (1976):

(113) a. Gardez toujours ce souvenir!
Keep always that remembrance
b. Gardez-le toujours!
Keep-it always
c. *Gardez toujours le!

Also in this case Emonds thinks in terms of a rule moving the clitic(s). But I believe that a Complementizer Attraction analysis as required by my hypothesis is possible as well. Therefore I propose the following rule:

(114) *Affirmative Imperative Inversion*

COMP	-	$\overline{CL}$	-	V	-	X
1		2		3		4
1+3		2		e		4

This analysis presupposes a node $\overline{CL}$ inside $\bar{V}$ which contains all pronominal and adverbial clitics but not the negative clitic *ne*: [$_{\bar{V}}$ *ne* $\overline{CL}$ V]. Although the node $\overline{CL}$ cannot be found in Emonds's analysis of French clitics, I do not think that the problems are insurmountable. What is more, it is worthwhile trying out this category, because this way we can make Affirmative Clitic Inversion part of the theory of root transformations as outlined above.[30]

30. Maybe SAI, Subject-Clitic $\bar{V}$ Inversion and Affirmative Imperative Inversion constitute a natural class. Such a class can be obtained by imposing upon structural indices of transformations the condition that at least one of any two consecutive terms must be satisfied by a factor changed by the rule. By this condition either the sequence

This having been established, I think it useful to compare the hypothesis about root transformations outlined in sections 3.1. through 3.3. with the theory presented by Emonds (1976), more specifically with his analysis of English root phenomena. This will be done in section 3.5.

3.5. Repartitioning Emonds's root transformations

3.5.1. Introduction: Two ways to partition the root transformations of English

If the hypothesis about root transformations outlined in this paper is compared with the theory presented in Emonds (1976), some differences can be perceived. That my assumption that all Complementizer Attraction Transformations, including the cyclic rule of *Wh*-Movement, are adjunction rules, conflicts with Emonds's theory, will be clear. A theoretical argument in favor of an adjunction approach will be discussed in section 4.2. More important at this moment is the question in which respects our theories differ as to which root transformations are Complementizer Attraction Transformations and which are not. I think the differences are a matter of degree and not one of principle. For instance, I have shown that it is not impossible to describe SAI and Verb Preposing etc. as root transformations substituting a verb for a V inside $\overline{\text{COMP}}$. So the fact that I want to move AUX in English into complementizer position, whereas Emonds describes SAI as a permutation, may not be exaggerated. Nevertheless, there are some more remarks I would like to make about Emonds's division of root transformations.

I quote Emonds (1976):

"The root transformations are now divisible into three categories:

1. Those that induce comma intonation — the tag question rule, left and right dislocation, certain transformations that produce parentheticals of various sorts (discussed in the following sections).
2. The COMP substitutions rules, which do not induce comma intonation.
3. The two "inversion" rules — subject-auxiliary inversion and subject-simple verb inversion. Like local rules, these rules

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Constant$_i$ - *Variable* - *Constant*$_{i+1}$ or the sequence *Constant*$_i$ - *Constant*$_{i+1}$ - *Constant*$_{i+2}$ can be part of a structural index. SAI-like rules would then constitute a subset of the set of transformations allowed by the latter sequence, where *Constant*$_i$ = COMP and *Constant*$_{i+2}$ is followed by a variable.

interchange two adjacent constituents, one of which is not a phrase node. (Unlike local rules, they depend on conditions external to the two interchanged nodes.)" (Emonds (1976), chapter 2.8.)

The COMP substitution rules of Emonds's are: Negated Constituent Preposing, Directional Adverb Preposing, Topicalization, VP Preposing, Comparative Substitution, Participle Preposing and PP Substitution. Although I agree with Emonds at many points I have my doubts about this division. Therefore I present the following division of root phenomena. Some discussion of that division will enable me to defend a different view at English root phenomena.

For sake of discussion I partition the root phenomena of English as follows:

1. a. the tag question rule
   b. Left and Right Dislocation and Topicalization (and Intraposition)
   c. VP-Preposing
2. parentheticals of various sorts
3. Complementizer Attraction Phenomena: Negated Constituent Preposing, Directional Adverb Preposing, Adverb Preposing, SAI
4. Subject Simple Verb Inversion
5. Double Movements: Comparative Substitution, Participle Preposing, PP Substitution, which rules may partly involve Complementizer Attraction Rules.

There is one point where Emonds and I clearly agree: Parentheticals cannot be described in terms of Complementizer Attraction Transformations, because the pertinent phenomena differ too much — if a special Parenthetical transformation is the right way to deal with parenthetical phenomena at all. Therefore, I leave out a discussion of my number 2. Section 3.5.2. will deal with my number 1., while my numbers 4. and 5. will be discussed in section 3.5.3., The Compementizer Attraction phenomena of my number 3. do not require any further discussion.

3.5.2. No root transformations needed

The reason why I want to collect under one number phenomena like tag questions, left and right dislocation, topicalization and VP Preposing, is that I believe that all of them can be described in terms of existing rules and do not need novel transformational rules. At various points in his book (1976) Emonds himself refers to a nontransformational solution for

left and right dislocation by means of base rules generating a dislocated category to the left or the right of an independent sentence as well as a special requirement fur such structures to the effect that there be an anaphoric pronoun in the sentence referring to the left or right dislocated element. Compare Hirschbühler (1974) and Van Riemsdijk and Zwarts (1974). A similar solution has been proposed for Topicalization by Chomsky (1977). I come back to that in a moment.

Something similar can be said about Tag Questions. Consider the following examples:

(115) a. You are May, aren't you?
b. Peter won't buy that book, will he?

We know that a Tag Question is a declarative sentence followed by a repetition of the first auxiliary and the subject plus or minus the negation. Emonds proposes an analysis involving a rule of Tag Formation copying an entire declarative sentence with addition of *whether* and with deletion of the negative if the declarative is negative and with addition of the negative if the declarative is affirmative. Subsequent application of the well-known rules of VP Deletion and Subject Aux Inversion will do the remaining work. The power of rules like Tag Formation is enormous and so undesirable. But we do not need that rule at all, since the devices necessary for generating tags are given by the theory. I mean, of course, the base rules. This means that all rules for generating tags, i.e. base rules, SAI and VP Deletion, are present, and that we do not need any additional transformation for generating Tag Questions. What we need is a textgrammatical requirement for minitexts like (115) that have a special function, i.e. the function of a question that one expects to be answered positively. Such a text grammar rule requires that the first sentence of such a text be a simple declarative, whereas the second sentence be a yes/no-question reflecting the propositional content of the declarative while changing the truth value of the declarative, which must delete its VP. Such text rules can be found in other languages too. In this paper I have cited several examples. I refer to the independent conditionals and concessives, discussed in n. 3. These examples are taken from Dutch. I also refer to the Dutch contrastive minitexts quoted in (64), where the first one of the constituting sentences must be a marked declarative with the finite verb in first position. Some of the French examples I quoted from Dubuisson and Goldsmith (1976) seem to me to have the same characteristics, especially (106) and (108). These are combinations of two independent sentences, the first of which must be marked in that some constituent is preposed and Subject-Clitic $\bar{V}$ Inversion has applied. Thus we can discard Tag Formation as a transformational rule and so, as a

root transformation. The sole thing that is root-transformational about tag questions is the fact that SAI is applied to the second constituting sentence of a tag question. But that follows from the requirement that the second sentence be a yes/no-question.

In Chomsky (1977) it is suggested that Topicalization in English be described as a derivative of *Wh*-Movement. The topicalized element is supposed to be base-generated under a node TOP that is generated by base rule (116)a:

(116) a. $\bar{\bar{S}} \rightarrow$ TOP $\bar{S}$
b. $\bar{S} \rightarrow$ COMP S

The gap in the sentence that is adjacent to TOP is left behind by a *wh*-element moving into COMP position, which is deleted in the course of the derivation. The theory, as developed in Chomsky (1973), (1976)a, (1976)b and (1977), does not allow the movement of an element out of a cyclic $\bar{S}$, unless it is the subject of an infinitival $\bar{S}$ that is a clause mate of the landing site (COMP, NP), or unless it can move into, and later out of, the complementizer that is a clause mate of the mover. Thus COMP serves as a second escape hatch for cyclic $\bar{S}$, whether infinitival or not. Only one cyclic rule is known to satisfy the latter requirement of moving into and out of COMP, i.e. *Wh*-Movement. Now Topicalization coincides with *Wh*-Movement in most respects: It leaves a gap; there is an apparent violation of Subjacency, The Subject Condition and the Propositional Island Constraint; the Complex Noun Phrase Constraint and the *Wh*-Island Constraint are obeyed. However, there is an important difference: *Wh*-Movement can leave behind its preposee at any point in a cyclic derivation. Topicalization can not. Being a root transformation, Topicalization must move its preposee into topmost position. Therefore Chomsky proposes to split up the process of Topicalization into two parts: one part defined by the base rules and a pronominalization requirement and one part defined by *Wh*-Movement. Of course, this idea can be put aside as 'Chomskyan fancies' because of the initial strangeness of the proposal and one can continue describing Topicalization as a Complementizer Attraction Transformation. I do not think it is wise to do that. Chomsky's theory predicts that root transformations, which are not able to apply cyclically, will be constrained by Subjacency and related conditions, i.e. it is predicted that the preposee of a root transformation that moves that consituent over a variable into complementizer position will be the clause mate of the COMP it moves into (or the subject of an infinitival complement that is a clause mate of the pertinent COMP). This prediction is borne out in quite some cases. In section 3.2.1. I have pointed out that Constituent Preposing in Dutch, which subsumes

Topicalization, is a bounded rule. The same applies to the rule of Verb Preposing.[31] Most root transformations in English seem to be bounded rules. I refer to Negated Constituent Preposing, Directional Adverb Preposing and if the Double Movements (terminology mine, see my number 4) may be split up in a root preposing and a stylistic postposing, then all root preposings obey the theory. Something similar was noted by Chomsky (1976)a who remarks that what he calls Adverb Preposing does not permit construal of the preposed adverb and an embedded clause. Most of his examples involve Negated Constituent Preposing, only one involves the use of a preposed adverbial PP. So the sole exception seems to be Topicalization, an unbounded phenomenon. But this rule looses its exceptional status if we accept the description of Topicalization proposed in Chomsky (1977).[32]

Intraposition, a rule Emonds does not talk about anymore in his book (1976), is another candidate for description in terms of existing rules. Koster (1975)b proposes a description of Dutch Intraposition (see (117)) in terms of a left dislocation node and topicalization of a coreferent pronoun that is optionally deleted. This description predicts that also object complements can undergo these rules, which is the case indeed (see (118)):

(117) Dat ie komt, (dat) is vreemd
That he comes, (that) is strange

(118) Dat ie zou komen, (dat) wist ik niet
That he would come, (that) knew I not

In Williams (1974), ch. 4, section 2.6, it was noted that Intraposition is a clear counterexample to the claim that all root preposings move a constituent into COMP, if one assumes that extraposed sentences are substituted for the subject-NP. The description in Koster (1975)b solves this problem for Dutch. Now Higgins (1973) has noted that English object complements may topicalize, whether they hail from an embedded sentence or not, (see (119)) and that subject complements from lower clauses may topicalize as well (see (120)). In both cases the expletive

31. For similar remarks about Topicalization in Dutch see Van Riemsdijk (1976)b. Topicalization in Danish and Swedish is not bounded but it also violates the CNPC under rather complicated bridge conditions. See Erteschik (1973) and Allwood (1976).

32. If my approach is right, then Complementizer Root Attractions constitute a problem for Bresnan's theory (Bresnan 1976a and b). According to that theory a rule moving a constituent across a variable towards a complementizer will be unbounded, while obeying the Complex NP Constraint and the *Wh*-Island Constraint. This predicts that rules like Constituent Preposing in Dutch are unbounded, which is incorrect. Compare my remarks about (57)-(59).

pronoun must be absent. This fact corresponds with the fact that the expletive pronoun must be absent in Intraposition sentences too (see (121)). Emonds (1976) has adopted Higgins's description and assumes that sentences dominated by NP may topicalize, in which case the pronoun accompanying the S inside the NP will delete in COMP position. Compare the following examples, which are taken from Higgins (1973) ((119) and (120)) and Emonds (1976) (example (121)):

(119) a. That you refuse even to discuss the matter I most certainly do resent (*it)
b. That we won't abandon him you may definitely depend on (*it)

(120) That Susan would be late John didn't think (*it) was very likely

(121) That the boys were dancing together (*it) was amusing John

It is evident that we can apply Chomsky's (1977) solution for Topicalization here too. The difference in description between Dutch and English is motivated by the fact that Dutch sentence topicalization is not an unbounded phenomenon, witness (122):

(122) a. Dat zijn oma ziek was, heeft ie niet meer
That his grandmother ill was, has he not anymore
op tijd vernomen
in time heard
b. *Dat zijn oma ziek was, denk ik (niet), dat
That his grandmother ill was, think I (not), that
ie nog op tijd heeft vernomen
he still in time has heard

Thus the moral of this discussion of tag questions, left and right dislocation, topicalization and sentence topicalization (Intraposition) is that not all root phenomena have to be described in terms of special root transformations. Existing rules (SAI, *Wh*-Movement, base rule, VP Deletion) plus an extension in the area of base rules and text grammar will do the job. Furthermore, within the framework of the theory of Chomsky (1973), (1976)a and b and (1977) it is expected that root transformations are bounded. Unbounded root phenomena can be described by means of other rules.

Now I come to a less clear case, the rule of VP Preposing, which is the last rule mentioned under my number 1. Compare the following examples of VP Preposing (123) and of Participle Preposing (124):

(123) a. John intends to make a table, and make one he will
b. We thought someone would fail the exam, and fail it many people have

(124) a. Speaking at today's lunch will be our local congressman
b. Taking turns, as usual, were his two sisters
c. Examined today and found in good health was our nation's chief executive

All examples are taken from Emonds (1976). As regards Participle Preposing Emonds remarks that here too VPs have been preposed. One might want to collapse VP Preposing with the preposing part of Participle Preposing, were it not the case that the cyclic rule of Affix Hopping must apply before the rule of Participle Preposing whereas Affix Hopping must be ordered after VP Preposing because the *en*-affix of *have* does not show up in preposed VPs. Compare (124) with (123)b. It is not easy to solve this problem. The weird ordering of Affix Hopping is not something that is expected since all applications of Affix Hopping are supposed to occur in one block. Another way out might be the proposal to base-generate VP in TOP position while deleting (or interpreting) an identical VP in the corresponding sentence. This proposal will do for the sentences cited in (123) and it would explain why the preposed VP in (123)b does not have an affix on the verb. However this proposal also predicts that the following sentences should be good, which they are not:

(125) a. *Speak at today's lunch our local chairman was (or: will be)
b. *Speak at today's lunch was our local chairman (or: will be)
(126) a. *Examine today and find in good health our nation's chief executive was
b. *Examine today and find in good health was our nation's chief executive

Thus there is a descriptive dilemma: Either we accept a weird ordering or we must base generate VP (at least for the cases in (123)) and filter out sentences that are wrongly predicted to be grammatical. This deadlock can be solved however, if we make one more assumption and accept a categorial differentiation between verbs and participles. Participles governed by *be* are either adjectives or an intermediate category that has its own projection within $\bar{X}$-theory. In the latter case the preposees in (124) are Participle Phrases. Either choice can be combined with the assumption that so-called preposed VPs are base-generated in TOP and bind a VP that is emptied (or interpreted) by the rule of VP Deletion. Thus, again we may conclude that a root phenomenon can be described in terms of existing rules.

3.5.3. Inversion phenomena

Finally something about certain inversions between a Subject and the

verbal sequence in the case of Double Movements and Directional Adverb Preposing. I agree with Emonds (1976) that the inversion of Subject and verbal sequence in the case of the Double Movements, or, as Emonds calls them, Preposings around Be, can be attained by means of the rule of Stylistic Inversion (see Emonds (1976), ch. 2, section 7). This stylistic rule accompanies the preposing rules of Comparative Substitution, Participle Preposing and PP Substitution, which can all be described in terms of a Complementizer Attraction Rule. Compare the following examples:

(127) a. More important for the local populace has been the invasion in Zaire
b. Dancing at the table was my cousin Florimund
c. On the wall hangs a portrait of Hua, that revisionist!

Such a description would explain the bounded nature of the Double Movements. But boundedness could also be achieved by describing the total process as a stylistic phenomenon via the interchange of subject and AP, PP or Participle Phrase. This would be another explanation for the relative easiness of these rules in certain embedded contexts, which would be a substitute for the explanation I suggested for the data of Hooper and Thompson (1973) in section 2. However the semantic constraints that are necessary for embedding the pertinent constructions suggest that at least one root rule is involved in the generation of (124) and (127). Thus we can define a fourth group of root phenomena: those defined by a Complementizer Attraction Rule and a stylistic rule of Stylistic Inversion, the combination of which is required by the grammar of English. Basically this is not different from the proposal I made for the description of root constructions in English and Dutch and German in general. In the introduction of this section 3 I suggested to describe marked and unmarked root constructions in Dutch and German in terms of non-applications of root transformations taken from two sets, one set containing Verb Preposing, the other set containing all other root preposings. And now certain root constructions in English appear to be defined in terms of a Complementizer Attraction Transformation taken from the latter set and a stylistic rule. Both rules are required to apply in order to generate the Double Movement structures, which have a specific function to perform, evidently.

Consider the following examples:

(128) a. Never have I heard him swear so loudly
b. Only yesterday did he give me some help

(129) a. So loudly did he swear that I was disgusted
b. He is five feet tall. And so am I

(130) a. Into the room flew Sam, the bald eagle
b. Away ran Snyder
c. Away he ran

In (128) and (129) are exemplified some cases of constructions that require a combination of a root preposing rule with SAI. This is the normal case as compared with the case of the Double Movements. Emonds claims that the sentences under (130) can be described by another combination of root transformations: Directional Adverb Preposing plus Subject Simple Verb Inversion. This latter rule is subject to the requirement that no verb occur to the right of the verb to be inverted. Note that SAI must be ordered before *Do* Erasure, whereas Subject Simple Verb Inversion must follow that rule. Extrinsic orderings are always suspect. Furthermore this ordering violates a principle which I think is well-motivated, i.e. Counterdeletive Ordering Principle. This principle is discussed in section 4.1. However there is more to it. Note that Subject Simple Verb Inversion also requires that the Subject be nonpronominal. If the subject is pronominal the rule simply does not apply, which does not jeopardize the grammaticality of Directional Adverb Preposing sentences. So Subject Simple Verb Inversion does not have to be applied in case of Directional Adverb Preposing. This is confirmed by an observation by Williams (1974). Williams notes that sentences like (131) are grammatical:

(131) Into the woods, John ran

However, Willams suggests that this sentence can be generated by Adverb Preposing, since that rule induces a comma intonation. He may be right, because Emonds claims that sentences like (132) are ungrammatical:

(132) * Down the street the baby carriage was rolled!

This implies that certain nonapplications of Subject Simple Verb Inversion do jeopardize the grammaticality, whereas others do not. A rather strange constellation of facts. I have to conclude that Directional Adverb Preposing constructions are stylistically highly marked constructions defined in terms of an application of a Complementizer Attraction Transformation (maybe Adverb Preposing) and either an application of a stylistic rule of Subject Simple Verb Inversion in the case of a nonpronominal Subject or a nonapplication of that rule in the case that the Subject is pronominal and a simple verb is present. This means that a non-application of Subject Simple Verb Inversion in the case of the presence of more than one verb does not count as a defining property of Directional Adverb Preposing constructions. This approach is in accord-

ance with the above-mentioned assumption about rule ordering which excludes the possibility of a root movement rule being applied after a deletive rule. Thus the root phenomenon of Directional Adverb Preposing happens to fall in the same class as the Double Movements around *be* and other verbs. All of these constructions can be defined in terms of (non)applications of one root preposing and one stylistic rule.

3.5.4. Conclusion

This concludes my discussion of English root phenomena. It has been established that the class of root transformations is substantially smaller than Emonds thought. There happen to be two groups of root transformations: Firstly, the group of transformations that are responsible for parenthetical structure. These transformations I did not talk about. And it is possible that they are not transformations at all. Secondly, the group of Complementizer Attraction Rules: Negated Constituent Preposing, the adverb preposing rules that might be one and the same rule and the preposing parts of Double Movements, fronting Participle Phrases, comparative APs and PPs; and last but not least Subject AUX Inversion. The first set of root preposing is rather bewildering in its diversity, but as long as it can not be established that English has a second strategy for Topicalization, coinciding with but also nonoverlapping with, the general Topicalization strategy as outlined in Chomsky (1977), there is no reason to assume a general rule of Constituent Preposing in English. Such a rule would greatly simplify the grammatical description of English. Up to the moment that such a general rule can be established, I have to assume that the multitude of root preposings in English grammar reflects a system in decay, i.e. the old West Germanic system of root constructions in decay. Alternatively, if we were to assume one general preposing rule, it could be left to that part of grammar where marked and unmarked root constructions are defined to account for this system in decay.

In so far as I can see, this exhausts the list of possible root transformations in English. It has been established that certain root phenomena can be defined in terms of (non)applications of root transformations: Questions, Negated Constituent Preposing constructions, Adverb Preposing constructions. Others are defined in terms of (non)applications of one root transformation and one stylistic rule: Directional Adverb Preposing constructions and Double Movement constructions. And finally, certain root constructions are not defined in terms of root transformations at all, unless indirectly: Tag questions, Left and Right Dislocation, Topicalization and VP Preposing constructions.

3.6. Conclusion

This concludes my discussion of the definition of root transformations. We know now that if we accept the definition of X-domain rule in (99), Chomsky's definition of the Upgrading Principle (101) and the definition of upgrading in (100), the theory formulated that way requires that any language that fronts its *Wh*-phrase use a base rule expanding $\bar{S}$ into COMP and S and that such a language move its root preposees into complementizer position. This does not exclude that there are other possible landing sites at $\bar{S}$ level, but I do not know of them yet. Furthermore no claim is made about the rules that generate parentheticals.

Languages that do have a rule of *Wh*-Movement are Dutch, German, French and English. And it has been shown that all root preposings in these languages can be described in terms of Complementizer Attraction Transformations, unless there are reasons to adopt a description by means of base rules and other rules (English Topicalization, VP Preposing, and Tag Questions; Left and Right Dislocation). It has also been shown that Dutch and German syntax presents evidence in favor of formalizing root preposing rules, more specifically the rule of Verb Preposing, as Complementizer Attraction Transformations.

4. *Haben/sein* Deletion in German and *Ha* Deletion in Swedish

4.1. Haben/sein Deletion and the ordering of deletive rules

With the result of the preceding section we can now address the problem expounded in section 2. Consider the following German examples:

(133) a. --, daß er noch nicht gekommen (ist)
--, that he yet not come (has)
b. Er *(ist) noch nicht gekommen
He *(has) yet not come

(134) a. --, warum er geweint (hat)
--, why he wept (has)
b. Warum *(hat) er geweint?
Why *(has) he wept?

An archaic rule of German syntax deletes the finite forms of the temporal auxiliaries *haben* und *sein* (in this case *hat* and *ist* respectively) only if these are in sentence (or at least VP) final position. This rule is obligatorily bled by the root rule of Verb Preposing. So the ordering must

be 1. Verb Preposing 2. *Haben/sein* Deletion. This ordering is necessary only if the choice is made to apply both Verb Preposing and *Haben/sein* Deletion. Both rules are optional. The optionality of *Haben/sein* Deletion is clear from (133) and (134). The optionality of Verb Preposing can be argued for on the basis of the existence of dubitative questions, marked questions that do not prepose the verb. However, the decision whether one wants to apply a rule or not is made at the point that it is that rule's turn to apply (or not). Thus free ordering of the rules onder consideration will not do. And there is as yet no principle that predicts the ordering required. Furthermore the ordering 1. Verb Preposing 2. *Haben/sein* Deletion is in conflict with Williams's (1974) theory of rule ordering in syntax, if that theory is needed in addition to other theoretical principles. In order to see why, note that Verb Preposing is a $\bar{S}$-rule and that *Haben/sein* Deletion is a VP-rule. On the basis of these facts Williams's theory predicts that *Haben/sein* Deletion is ordered before Verb Preposing, an ordering that is known to be wrong, since it can generate ungrammatical sentences like ***Er noch nicht gekommen*** and ***Warum er geweint?***.

In Den Besten (1975) the following principle has been proposed, which partly preempts the ordering theory of Williams (1974):

(135) *Counterdeletive Ordering Principle*
Nondeletive rules precede deletive ones

By deletive rules I mean rules such that not each terminal element contained in an input string of such a rule is contained in the output string of that rule. Thus rules substituting for a specified lexical element another element that is either taken from the lexicon[33] or specified in the structural index of that rule[34] and rules substituting for a specified lexical element and the preterminal element immediately dominating it a class of lexical elements defined by the preterminal category immediately dominating them and specified in the structural index of the rule[35] are a subset

33. For such rules, see Den Besten (1976). The complementary distribution between *hij* and *ie* (see section 3.2.1.) could be accounted for that way and also the change from *of* to *dat* (compare (137) and (140)). Similarly for the rule changing the sequence *as as* 'than as' into *dan as* in Afrikaans:

(i) Hy het meer as nasionalis *as/dan as mens gehandel
He has more as a nationalist than as a human being acted

34. *Er-er* Contraction may be such a rule (compare section 3.2.1.).

35. The erasure of the past participle of the passive auxiliary in Dutch may be a rule of that type:

of the class of deletive rules, which furthermore contains normal deletion rules.[36] I assume that all rules of control, free interpretation and deletion (i.e. interpretation) under identity suffice as devices for the treatment of most deletion phenomena, which implies that we do not need any additional rules of deletion feeding the corresponding interpretation rules. Thus the sole examples for deletive rules will be found in the area of lexical adjustment rules: local rules deleting specified lexical elements or local rules substituting for specified lexical elements other lexical elements or classes of lexical elements. In that set of rules several rules can be found that have to be ordered after movement rules, thereby confirming the Counterdeletive Ordering Principle (henceforth: the CDOP). The best examples are those rules that have to be ordered after a root transformation. Evidence about such interaction with cyclic rules is hard to find. And I present an example with a cyclic rule first, since it also falls outside the scope of this paper.

Recall that *Wh*-Movement in Dutch does not obligatorily induce deletion of the complementizer *of* 'whether':

(136) --, wat (of) ie gedaan heeft
--, what (whether) he done has

There is another rule substituting *dat* "that' for *of* 'whether' when that complementizer is adjacent to the homophonous coordinating element *of* 'or':

(i) --, dat er hem een goede betrekking aangeboden (geworden) is
--, that there him a good job offered (been) has

(Alternative orders for the verbal complex are: *aangeboden is geworden* and *is aangeboden*.) Note that the temporal auxiliary *is* 'has' is in fact a form of *zijn* 'be', Dutch being one of those languages that distinguish between *have*- and *be*-verbs. Finally note that for speakers of Dutch from the Netherlands the use of *geworden* in passives is practically nonexistent. It is felt to be oldfashioned, dialectal, 'Belgian'. Speakers of Belgian Dutch usually do not leave out *geworden*.

36. A genuine counterexample might be the observation that the rule deleting the Subject of an imperative must precede Affirmative Imperative Inversion (rule (114)). However, this objection is easy to overcome, since an interpretation rule for an empty Subject phrase in an imperative can do the job as well. It may well be that all rules of control, free interpretation and deletion under identity involve empty categories, and so interpretation rules. We need then the following analyzability principle for transformations:

(i) $[_C \Delta^n]\ (n \geqslant 1) \neq e$ *iff* C is satisfied by a factor that must be changed

(137) Ik weet niet, of ie zijn stuk al af
I know not, whether he his paper already has
heeft, of *of/dat ie lui is geweest
finished, or *whether/that he lazy has been

This rule is bled if a *wh*-phrase slips between *of* and *of*. And so the CDOP predicts that the following sentence is grammatical, which is correct:

(138) Ik weet niet, wat (of) ie geschreven heeft, of
I know not, what (whether) he written has, or
hoe (of) ie het geschreven heeft
how (whether) he it written has

This would be a nice confirming example, were it not that (139) is also grammatical:

(139) Ik weet niet, wat (of) ie geschreven heeft, of hoe (dat) ie het geschreven heeft

This can be blamed upon another rule substituting *dat* for *of* when that complementizer is preceded by a *wh*-phrase. Compare:

(140) --, wat (dat) ie gedaan heeft
--, what (that) he done has

Nevertheless nothing militates against a free ordering of *Wh*-Movement and the rule transforming *of of* into *of dat*. The right results follow as well. I have similar problems with other deletive rules interacting with cyclic rules. The CDOP can do the job but is not required. Only if the theory requires that Complementizer Attraction Transformation adjoin constituents to the complimentizer or if the theory requires that these transformations substitute constituents for $\bar{\bar{X}}$ or V inside $\overline{\text{COMP}}$ — which implies in both cases that we have a lexical complementizer to delete —can it be shown that languages like English and German, which obligatorily delete the lexical complementizer in case of *Wh*-Movement, need an ordering 1. *Wh*-Movement 2. Complementizer Deletion and so confirm the CDOP. Since the substitution approach of *Wh*-Movement can satisfy the theory outlined in (99)-(101) by ad-hocly disregarding COMP we might say that the theory presented in section 3.3. can serve as the theory required. Within that theory then the CDOP is necessary. But it also clear from this example and the preceding one that it is not easy to find a simple example confirming the CDOP with a deletive rule and a cyclic movement rule. Fortunately I do not know of any counterexample in that area either.

There is ample evidence for the CDOP as soon as one considers the interaction between deletive rules and root transformations. Two of these have been dealt with in section 3.1. First of all there is the rule of *Er-er*

Contraction in Dutch which may be bled by Constituent Preposing, depending on which constituent is elected by that transformation. Some relevant sentences are:

(141)a. *--, dat er er gisteren nog vijftien over waren
--, that there there yesterday still fifteen left were
b. --, dat er gisteren nog vijftien over waren

(142)a. *Gisteren waren er er nog vijftien over
Yesterday were there there still fifteen left
b. Gisteren waren er nog vijftien over

(143) Er waren er gisteren nog vijftien over
There were there yesterday still fifteen left

Given this corpus we may conclude that the ordering 1. Constituent Preposing 2. *Er-er* Contraction gives the right results. This ordering is predicted by the CDOP. But that in itself does not suffice as confirming evidence for that principle. A free ordering of Constituent Preposing and *Er-er* Contraction does too allow an application of these rules in that order. Now free ordering predicts that also (144) is grammatical. Sentence (144) is generated via the ordering 1. *Er-er* Contraction 2. Constituent Preposing. The CDOP on the other hand predicts that that order is not possible and that consequently (144) is ungrammatical, which it is.

(144) *Er waren gisteren nog vijftien over

Thus free ordering is excluded. The CDOP is confirmed.

The interaction between the German rule deleting indefinite *es* and the rule of Constituent Preposing yields a parallel example. But here the necessary extra evidence against free ordering is absent. So free ordering of *Es* Deletion and Constituent Preposing is not excluded. I quote one set of examples without discussing them:

(145)a. --, daß (*es) voriges Jahr noch zwei Bäume im
--, that (*there) last year still two trees in-the
Garten standen
garden stood
b. Voriges Jahr standen (*es) noch zwei Bäume
Last year stood (*there) still two trees
im Garten
in-the garden
c. Es standen voriges Jahr noch zwei Bäume im
There stood last year still two trees in-the
Garten
garden

Afrikaans presents us with an example that is similar to the Dutch one. Afrikaans is a language with double negation like French (see (146)). The negation duplicator *nie* always appears to the right of the verb, which in Afrikaans, a partly creolized derivative of Dutch dialects, is VP-final. There is one exception to this statement: If there is an extraposed complement in the sentence this complement occurs between the verb and the negation duplicator (see (147)):

(146) a. --, dat hy nie lag nie
--, that he not laughs not
b. --, dat hy nooit lag nie
--, that he never laughs not
c. --, dat hy niemand ken nie
--, that he nobody knows not

(147) --, dat ek nie weet, of hy kom nie
--, that I not know, whether he comes not

If the complement itself contains a negation it must also contain a negation duplicator (see (148)). But if both embedding clause and embedded complement are negative then the predicted sequence of two negation duplicators is reduced to one *nie* (see (149)):

(148) --, dat ek weet, dat hy nie kom nie
--, that I know, that he not comes not

(149) --, dat ek nie glo, dat hy nie kom nie (*nie)
--. that I not believe, that he not comes not (*not)

Let us call this rule *Nie-nie* Contraction. Now there is one more environment for *Nie-nie* Contraction: If the negative element *nie* is immediately to the left of a verb and the negation duplicator *nie* is immediately to the right of that verb, Verb Preposing will yield a sequence *nie nie*. This sequence contracts (see (150)). This contraction does not apply if the negation duplicator is immediately preceded by a negation element other than *nie* or if after Verb Preposing *nie* and *nie* still are separated by a verb, a participle or an extraposition complement (see (151)):

(150) ek lag nie (*nie)
I laugh not (*not)

(151) a. Hy lag nooit nie
He laughs never nie
b. Hy ken niemand nie
He knows nobody not
c. Hy kan nie huil nie
He can not weep not

d. Ek het nie gelag nie
I have not laughed not
e. Ek weet nie, of hy kom nie
I know not, whether he comes not

The rule ordering that is required is 1. Verb Preposing 2. *Nie-nie* Contraction. This ordering is predicted by the CDOP. Free ordering of Verb Preposing is excluded, because that ordering predicts that both (150) and (152) are grammatical.

(152) *Ek lag nie nie

But we know already that the latter sentence is ungrammatical. And that is exactly what is predicted by the CDOP. So, again the CDOP is confirmed.

It may be concluded that the ordering 1. Verb Preposing 2. *Haben/sein* Deletion in German is a member of a larger set of orderings defined by the CDOP. The Afrikaans example is exceptional in that it is the sole example I know of presently that presents us with a feeding ordering of a movement rule (Verb Preposing) and a deletive rule (*Nie-nie* Contraction). The other examples from Dutch and German are similar in that a deletive rule is bled by a movement rule (Constituent Preposing or Verb Preposing). The Dutch rule of *Er-er* Contraction and the German rule of *Es* Deletion, which I may present now as an example of counterdeletive ordering, are only optionally bled by Constituent Preposing because *er* and *es* do not have to front under Constituent Preposing. That rule can prepose other constituents as well. This does not hold for Verb Preposing, because there is only one finite verb that can be preposed. And if the element preposed, i.e. the finite verb, is also a candidate for deletion under *Haben/sein* Deletion, that rule will be bled as many times as the verb is fronted. Now Verb Preposing is virtually obligatory, since it is the common defining characteristic of unmarked questions and unmarked declaratives. Only dubitative questions that do not front the verb are an exception to the general statement that in root sentences the finite verb is fronted. Thus we may claim, albeit with qualification, that the theory predicts that there are antiroot phenomena if an obligatory rule necessarily bleeds a deletive rule, i.a. if the element to be deleted is the element to be preposed. This confirms Emonds's claim that there are root transformations and cyclic rules. We do not have to invent a new category of antiroot transformations.

4.2. Ha Deletion and base-generability

As I have remarked in section 2., the behavior of *Ha* deletion is quite

similar to the behavior of *Haben/sein* Deletion. Consider again the following Swedish example:

(153) Nixon sade/säger att han redan på ett tidigt stadium
Nixon said/says that he already at an early stage
(hade) insett att han måste förstöra banden
(had) realized that he had-to destroy tapes-the

(154) Han *(hade) insett på ett tidigt stadium att han måste
He *(had) realized at an early stage that he had-to
förstöra banden
destroy tapes-the

The auxiliary *ha* is optionally deleted when it is immediately to the left of the participle (compare (153)). In root sentences this rule does not apply, even though *hade* is immediately to the left of the participle *insett* in (154). Howcome? My first guess is that here too Verb Preposing has bled a deletive rule, the rule of *Ha* Deletion. That there is a rule of Verb Preposing (root transformation) in Swedish, is true. Consider the following sentences:[37]

(155) a. --, att John (har) sett boken
--, that John (has) seen book-the
b. John *(har) sett boken
John *(has) seen book-the

(156) a. --, att John inte (har) sett boken
--, that John not (has) seen book-the
b. John har inte sett boken
John has not seen book-the

(157) a. --, att Kalle gärna/ofta äter ärtsoppa
--, that Kalle gladly/often eats peasoup
b. Ärtsoppa äter Kalle gärna/ofta
Peasoup eats Kalle gladly/often

(158) a. --, att Kalle äter ärtsoppa på torsdager
--, that Kalle eats peasoup on Thursday
b. Kalle äter ärtsoppa på torsdager
Kalle eats peasoup on Thursday

(159) a. --, vad John (har) sett
--, what John (has) seen
b. Vad har John sett?
What has John seen?

Swedish is an SVO language underlyingly. This we may conclude from

37. I owe these sentences to Elisabet Engdahl.

the a-sentences of (155)-(158). There is one qualification to that statement: The negation element *inte* (not) and certain adverbs appear between the subject and the first verb (compare (156)-(157)). From (156)-(159) we may conclude that there is a rule of Verb Preposing, fronting the first verb of the verbal sequence, whether that verb is an auxiliary or a main verb (compare (156) and (159) with (157)). This rule is a root transformation. We may assume that Verb Preposing puts the finite verb in complementizer position, because there is a rule of *Wh*-Movement in Swedish, which — according to my hypothesis — needs a COMP at $\bar{S}$-level, and so forces all root transformations, which — according to my hypothesis — must be $\bar{S}$-rules, to move their preposees into COMP. Therefore there must be a general rule of Constituent Preposing that may prepose the subject (compare (154), (155), (156), and (158)) as well as other constituents (compare (157)) into complementizer position. Thus there is a strong resemblance in root behavior between Dutch and German on the one hand — SOV languages underlyingly — and Swedish on the other hand — an SVO language underlyingly.

If there is such a strong resemblance in transformational behavior, we may expect that the same rule ordering that was sufficient for German suffices for Swedish as well. And it does, though this seems unreasonable, since the verb *ha* that deletes in (153), (155)a, (156)a, and (159)a is in the same position, i.e. to the left of the participle, as the verb *ha* in (154), (155)b, (159)b, where it does not delete. However *ha* is *not* in the same configurational position. In (154), (155)b and (159)b the verb is in COMP position. And that is what counts. Evidently, *Ha* Deletion is a VP-rule or maybe a S-rule, but not a $\bar{S}$-rule. Hence, by (99) *Ha* Deletion will not apply at $\bar{S}$-level.[38]

The Swedish antiroot phenomenon is solved in terms of the Counter-deletive Ordering Principle (Verb Preposing before *Ha* Deletion) and Williams's (1974) theory of applicational domains (*Ha* Deletion applies to an S or a VP). Yet this leaves open an interesting problem: Why should *Ha* Deletion be a VP/S-rule at all? In order to give this question some background, consider the following Dutch examples:[39]

38. Obviously, in the case of lexical deletive rules the highest constituent exhaustively dominating the lexical element that is to be erased will satisfy the C_k required by (99). This constituent will be a preterminal in most cases, but sometimes also an NP, as is the case for *Er-er* Contraction.

39. Compare n. 12 and n. 14.

(160)a. *--, dat er er nog vijftien over zijn
--, that there there still fifteen left are
b. --, dat er nog vijftien over zijn

(161) a1. --, dat ik er daar$_i$ nog vijftien t$_i$ van over heb
--, that I there there$_i$ still fifteen t$_i$ of left have
a2. --, dat ik er daarvan nog vijftien over heb
--, that I there thereof still fifteen left have
a3. Daar$_i$ heb ik er t$_i$ nog vijftien t$_i$ van over
There$_i$ have I there t$_i$ still fifteen t$_i$ of left
b1.*--, dat ik er er$_i$ nog vijftien t$_i$ van over heb
--, that I there there$_i$ still fifteen t$_i$ of left have
b2. --, dat ik er$_i$ t$_i$ nog vijftien t$_i$ van over heb
--, that I there$_i$ t$_i$ still fifteen t$_i$ of left have

(162) a. *--, dat er er er$_i$ nog vijftien t$_i$ van over zijn
--, that there there there$_i$ still fifteen t$_i$ of left are
b. *--, dat er er$_i$ t$_i$ nog vijftien t$_i$ van over zijn
--, that there there$_i$ t$_i$ still fifteen t$_i$ of left are
c. --, dat er$_i$ t$_i$ t$_i$ nog vijftien t$_i$ van over zijn
--, that there$_i$ t$_i$ t$_i$ still fifteen t$_i$ of left are

(163) a. *--, dat er er daar$_i$ nog vijftien t$_i$ van over zijn
--, that there there there$_i$ still fifteen t$_i$ of left are
b. --, dat er daar$_i$ nog vijftien van t$_i$ over zijn
c. *Daar$_i$ zijn er er t$_i$ nog vijftien t$_i$ van over
There$_i$ are there there t$_i$ still fifteen t$_i$ of left
d. Daar$_i$ zijn er t$_i$ nog vijftien t$_i$ van over

The sentences under (160) show what we already know: Two *er*s have to contract, in this case the *er* of *There* Insertion and quantitative *er*. This contraction takes place at S-level. The examples in (161)a and b show that *Er-er* Contraction can take place elsewhere too. We know that so-called R-pronouns (*daar*$_i$ in (161)a and *er*$_i$ in (161)b) may leave their PPs and move to the general clitic area immediately to the right of the subject-NP. *Daar*, the strong variant (in (161)a), is sufficiently dissimilar with *er* and so does not have to contract with *er*. Ergo, (161)a1 is grammatical. *Er*, the weak variant (in (161)b1) is homophonous with quantitative *er* and, not surprisingly, does contract with *er*. Therefore (161)b1 is ungrammatical and (161)b2 is grammatical. For the bedazzlement of my readers I have added examples (162) and (163), which show that Dutch can contract three *er*s in a row. I have made an arbitrary decision by assuming that the righthand *er* of two contracting *er*s substitutes for the lefthand *er*, but nothing depends upon that.

It is not implausible to assume that the contraction that yields (161)b2

and (162)c takes place at VP-level or at PredP-level. This implies that one rule may apply at several levels, if its SD is met. A similar remark is made by Williams (1974). He probably thought of rules like Reflexive Formation and Reciprocal Formation (or: Interpretation). Given these considerations it is completely accidental that *Er-er* Contraction and the Reciprocal and Reflexive rules would be multilevel rules and *Ha* Deletion a one-level rule. The problem can be put differently. What is the relation between the factors changed by a rule and the domain statement? Can we predict domain statements or are they arbitrary?

I turn back to the theory of applicational domains. Why is a rule like the NP Preposing part of Passive a S-rule? The answer could be: Because we have to move the object-NP towards a subject position and the subject-NP is generated under S. Why are adjunctive Complementizer Attraction Transformation $\bar{S}$-rules? The answer could be: Because these rules prepose a constituent towards the complementizer and the COMP is generated under $\bar{S}$. Something similar holds for the substitutive approach for Complementizer Attraction Transformations. Now let us review the definition of X-domain rules again:

(99) A rule R_i is a X-domain rule *iff* the structural index of R_i contains a constant C_k such that
a. C_k is properly contained in X and
b. there is no Y such that X properly contains Y and Y properly contains C_k and
c. C_k is satisfied by a factor changed by the rule.

Does this definition predict that NP Preposing is a S-rule? It does. Does this definition predict that *Er-er* Contraction could be both a VP-rule and a S-rule? It does, compare n. 38. And does this definition predict that Complementizer Attraction Transformations (under the adjunctive fashion) are $\bar{S}$-rules? It does. So we may conclude that domain statements do not have an independent status at all, and that we can predict the domain by simply looking at the SD of a rule and at the tree that rule is applied to.

Now *Ha* Deletion is an interesting rule, since it is not clear whether definition (99) will predict that *Ha* Deletion is a VP-rule and not a $\bar{S}$-rule. Compare this transformation with German *Haben/sein* Deletion. This rule specifies that *haben* or *sein* may be deleted if it appears to the right of the participle. Since this situation does not seem to occur at $\bar{S}$-level (*haben* or *sein* has moved to the left), definition (99) seems to safely predict that *Haben/sein* Deletion is a VP-rule. Now that is not quite correct. Consider the following examples:

(164) a. Gelacht *(hat) er nicht
Laughed *(has) he not
b. Studiert *(hat) er schon, aber ob er *studiert* hat?
Studied *(has) he yes, but whether he studied has?

There is little reason for assuming that COMP is a potential domain. Yet, whether or not we assume that COMP can be a domain, definition (99) will make incorrect predictions. Suppose COMP is a domain[40], in that case (99) predicts that *Haben/Sein* Deletion can be both a VP-rule and a COMP-rule. If COMP is not a domain, this deletion rule can be either a VP-rule or an $\bar{S}$-rule. Now *Haben/Sein* Deletion must be ordered after the root preposing rules, and — whether this deletion transformation is a COMP-rule or an $\bar{S}$-rule — the required ordering permits the erasure of *hat* in (164)a and b, which yields ungrammatical sentences. Therefore, *Haben/Sein* Deletion must be a VP-rule. In that case deletion of *hat* in (164)a and b is not allowed. Thus it does not make any difference whether (99) is able to distinguish between COMP-rules and $\bar{S}$-rules. And I have to stress again that the domain status of COMP as such is rather doubtful. Even rules that can be stated in terms of a COMP domain (cf. n. 40) can be restated in terms of an $\bar{S}$-domain, and I do not know of any clear evidence in favor of assigning domain status to COMP. This consideration preempts a rather long discussion of *Ha* Deletion. We can now say that definition (99) would predict that *Ha* Deletion can be applied both at VP level and at $\bar{S}$ level. An incorrect prediction. *Ha* Deletion must be a VP-rule only.

The above discussion implies that definition (99) in some clear cases makes correct, sometimes twofold predictions as to the domain of a rule. These predictions can be made on the basis of targets of transformations that are clearly in a base-generated position (subject-NP, COMP, *er*). However in some unclear cases, all of them involving targets that are moved by root rules into complementizer position, incorrect predictions are made. Now if the fuzzy edges could be cut away, definition (99) or some variant thereof could serve as a principle predicting the domain of a rule by simply analyzing the SD of that rule and the structure it is applied to. Therefore I propose to sharpen the theory of applicational domains by adding the following clause to (99):

(165) d. C_k can be base-generated under X

40. For instance for the deletion of *of* 'whether' to the right of a *wh*-phrase in Dutch, or for the deletion of the root complementizers after Verb Preposing. Compare Den Besten (1975).

This principle does not make any difference for NP Preposing[41] or even for COMP Attraction Rules. It could make a difference, though, for lexical deletive rules like *Haben/sein* Deletion and *Ha* Deletion. This depends upon the formalization of Complementizer Attraction Transformations. Up to now I have dealt with these rules as being formalizable as substitutions or as adjunctions without making any definitive choice. Let us consider them again. The substitution approach makes predictions that are not desired: If V is base-generated under COMP, it is predicted that the two auxiliary deletion rules may apply at $\bar{S}$-level, according to (99)+(165). This prediction is wrong and does not differ from the prediction made by (99). However, if we assume that Complementizer Attraction Transformations are adjunction rules, (99)+(165) correctly predicts not only that NP Preposing is an S-rule, Verb Preposing an $\bar{S}$-rule and *Er-er* Contraction both a VP and an S rule, but also that the auxiliary deletion rules of German and Swedish are VP-rules and not $\bar{S}$-rules. This result is not unimportant, for only if Complementizer Attraction Rules are adjunction transformations is it possible to predict the domain of a rule on the basis of the target involved.[42] Otherwise we have to arbitrarily assign domains. It is clear which theory deserves to be chosen: namely the theory that makes predictions. So we have to assume that the root transformations and *Wh*-Movement are adjunction rules, until somebody can show either that the adjunction approach follows from some principles as yet unknown or that the assignment of domains follows

41. Condition (165) subsumes part of Emonds's definition of structure-preserving transformations, i.e. the part requiring base-generability for the landing site (Emonds 1976). The other half of the definition of structure-preserving transformations, i.e. the requirement that the landing site be null, can be taken care of by the Recoverability Condition (see Fiengo 1974).

42. One could make the objection that the deletion of *wh*-elements in COMP is a counterexample and so that at least Constituent Preposing and *Wh*-Movement must be substitution rules. But it is not clear whether *wh*-elements are deleted in COMP position at all. Zero *wh*-elements may be zero right from the start and move to COMP in that guise. Their identity to the antecedent can be accounted for by a rule of pronominalization that is universally required for relative structures, whether a language fronts its relative pronouns or not. Furthermore, if we assume an NP position inside COMP, (99)+(165) cannot predict any longer that NP Preposing is a S-rule, and we would expect to find root passives moving the object into COMP without moving the Subject NP out of its original position:

(i) John_i Peter was helped t_i (i.e. John was helped by Peter)

Similarly, it has been noted that rules of construal like the Reciprocal Rule (see Chomsky 1976b) are S-domain rules (Kerstens 1976). This will follow from (99)+(165) if we assume that there is no NP inside COMP.

from another principle that makes my assumption about Complementizer Attraction Transformations superfluous.

As yet I can only show that the above hypothesis makes a prediction about the ordering of the English rules of *Wh*-Movement and SAI that can be supported by independent evidence.

5. SAI and *Wh*-Movement in English and the Base-Generability Principle

Usually it is assumed that there is a rule ordering 1. *Wh*-Movement 2. SAI in English. The observation that underlies this assumption is nicely verbalized in Higgins (1973), fn. 5:

> "Nearly all the root transformations that Emonds lists cause subject-auxiliary inversion to take place, effected by a root transformation, and so does *Wh*-fronting except out of subject position." (Higgins (1973), p. 152)

Some examples illustrating this observation are:

(166) a. What did you see?
b. *What you saw?
c. *What saw you?

(167) a. Why did you go?
b. *Why you went?
c. *Why went you?

(168) a1. *Who did sign the agreement?
a2. Who *did* sign the agreement?
b. Who signed the agreement?

From the difference between (166)a and (167)a on the one hand and (166)b and (167)b on the other hand we may conclude that at least some verb must move. This cannot be the main verb, witness the difference between (166)a and (167)a on the one hand and (166)c and (167)c on the other hand. There must be another, auxiliary, verb underlyingly, which may partake in SAI. This underlying auxiliary *do* normally deletes by a cyclic rule, as can be concluded from (169), if *do* is not emphatically stressed or if a third constituent standing between *do* and the main verb blocks the erasure of the auxiliary, which must be a local rule like all lexical deletive rules.[43]

(169) a1. *--, why you did go to North Western University
a2. --, why you *did* go to North Western University
b1. --, why you did too go to North Western University
b2. --, why you did not (didn't) go to North Western University
c. --, why you went to North Western University

43. Compare Den Besten (1975) and (1976) and Emonds (1976).

However these observations do not justify the claim that SAI did not apply to (168)b and that so *Wh*-Movement is ordered before Subject AUX Inversion. Suppose the ordering of these two rules is free. Then the following structures can be derived:

(170) $[_{COMP}$ Who$_i$ did$_j$] t_i t_j sign the agreement
(171) $[_{COMP}$ Who$_i$] t_i did sign the agreement

Structure (170) is the intermediate output of the transformational component after application of SAI and *Wh*-Movement in that order. Structure (171) is derived if *Wh*-Movement is ordered before SAI. The sole rule that is to apply now is *Do* Erasure. Whether or not *did* is in COMP position it is still to the left of *sign* and therefore eligible for effacement. Once it is established that free ordering of *Wh*-Movement and SAI can do the job as well as an ordering 1. *Wh*-Movement 2. SAI, the name of the rule of Subject AUX Inversion becomes dubious. Of course there is an inversion of subject and AUX in most cases. But if structure (170) is allowed, the formal expression of SAI could be either (172) or (173):

(172)	*Subject*		*AUX*		*Inversion*		*I*		
	COMP	-	NP	-	AUX	-	X		
	1		2		3		4		
	1+3		2		e		4		
(173)	*Subject*		*AUX*		*Inversion*		*II*		(Verb Preposing)
	COMP	-	X	-	AUX	-	Y		
	1		2		3		4		
	1+3		2		e		4		

These rules are equivalent in weak generative capacity, but not in strong generative capacity. SAI-I generates both (170) and (171) under free ordering with *Wh*-Movement. But SAI-II generates (170) only, whatever order is chosen. The late rule of *Do* Erasure will do the rest.

The above argumentation is all right within the confines of a transformational theory that does not incorporate the definition of domain statements expressed in (99) and (165). For ease of reference I call (165) the Base-Generability Principle. The Base-Generability Principle blocks the application of *Do* Erasure to (170), provided it is assumed that COMP is a preterminal element and so cannot dominate AUX. Therefore, the formalization of SAI as in (173) is excluded, because this rule would generate (170) only, while we have to be able to derive (168). The Base-Generability Principle makes a complex prediction in the case of (172), the traditional formalization of SAI. Consider the following sentences:

(174) a. What does he do?
b. Why did you do that?
c. Where did you see that dinosaur?
(175) Who knows the difference between a crocodile and a caiman?

We know that extraction of a nonsubject by *Wh*-Movement combines with an application of SAI. Let us assume that these rules are freely ordered. Now any applicational ordering of them will do — either 1. *Wh*-Movement 2. SAI or 1. SAI 2. *Wh*-Movement — if a nonsubject is fronted. That is, in both cases the auxiliary shifts to the left, lands between the COMP and the Subject and so cannot be processed by *Do* Erasure. Shortly, the Base-Generability Principle leaves the ordering free if the *wh*-phrase is a nonsubject. We have seen that free ordering of the pertinent rules derives both (170) and (171). The Base-Generability Principle does not block the further transformational processing of structures like (171) by *Do* Erasure, since the AUX is in the right, base-generated position for effacement. Application of *Do* Erasure to (170) is blocked by the Base-Generability Principle. Now this only matters if the AUX is not emphatically stressed. If it is, the derivation is not blocked because *Do* Erasure may not apply to an auxiliary that is emphatically stressed. But if it is not, the derivation is blocked, because *Do* Erasure has to apply to an auxiliary that is weakly stressed. Shortly, the Base-Generability Principle predicts an ordering 1. *Wh*-Movement 2. SAI only if the subject of the sentence processed is a *wh*-phrase and the adjacent AUX *do* is weakly stressed.[44]

This claim needs some qualification. In the preceding section I interpreted the definition of X-domain rule (see below) as a principle predicting the domain of a rule:

(99) A rule R_i is a X-domain rule *iff* the structural index of R_i contains a constant C_k such that
a. C_k is properly contained in X and
b. there is no Y such that X properly contains Y and Y properly contains C_k and
c. C_k is satisfied by a factor changed by the rule (and)
(165) d. C_k can be base-generated under X

44. Nothing is predicted as to the position of *is, has, can,* etc. in sentences like the following ones:

(i) Who is dancing?
(ii) Who has revised this book?
(iii) Who can tell what 'charm' is in physics?

The simplest interpretation of these predictions is that if a rule is a X-domain rule, its structural index $a_1,\ldots,a_n$ (where $n > 1$ and a_i is either a variable or a constant) is embraced by $[_X$ and $]_X$. This interpretation suffices for the German and Swedish auxiliary deletion rules, but it will not do for *Do* Erasure. *Ha* Deletion is a VP-rule and if that means that its structural index states in advance that it has to apply to VP, the right results are obtained. *Do* Erasure is a S-rule, but if that means that its structural index states in advance that it has to apply to S only, both (168)a1 and b can be derived in spite of the fact that (168)a1 is ungrammatical. Suppose we say that the Base-Generability Principle (165) is incorrect and must be eliminated. If so, we are back at a theory that does not make any prediction as to possible domains of application: *Do* may erase anywhere and Swedish arbitrarily chooses VP as the applicational domain of *Ha* Deletion.

Fortunately this is only one of the possible interpretations of the definition of X-domain rule. A natural interpretation of (99)+(165) would be that any rule may apply to any domain, as long as the requirements a)-d) are not violated. If they do, the derivation blocks. This interpretation ensures strict cyclicity: If Move NP is applied while the rule scans and transforms an $\bar{S}$, the derivation is blocked. This means that (99)+(165) is equivalent to (95) in so far as rule ordering is concerned. It is also ensured that derivations involving *Ha* Deletion do not block if *Ha* Deletion is applied to a VP and that derivations involving *Do* Erasure do not block if *Do* Deletion is applied to an S.[45] Therefore, the predicate 'be

45. Note that this predicts that if Swedish were to make *Ha* Deletion an obligatory rule, the set of grammatical and ungrammatical structures would change from (i) to (ii):

(i) 1a. –, COMP - NP - (ADV) - *ha* - PART - X
1b. –, COMP - NP - (ADV) - *e* - PART - X
2. $[_{COMP}$*ha*] - NP - (ADV) - PART - X
3a. $[_{COMP}[_{NP_i}$ ±wh] - *ha*] - t_i - ADV · PART - X
b. $[_{COMP}[_{NP_i}$ ±wh] - *ha*] - t_i - PART - X
c. *$[_{COMP}[_{NP_i}$ ±wh] - *e*] - t_i - PART - X
4. $[_{COMP}C_i$ - *ha*] - NP - (ADV)- PART - X - t_i - Y

(ii) 1a. *–, COMP - NP - (ADV) - *ha* - PART - X
1b. –, COMP - NP - (ADV) - *e* - PART - X
2. $[_{COMP}$ *ha*] - NP - (ADV) - PART - X
3a. $[_{COMP}$ $[_{NP_i}$ ±wh] - *ha*] - t_i - ADV - PART - X
b. *$[_{COMP}$ $[_{NP_i}$ ±wh] - *ha*] - t_i - PART - X
c. *$[_{COMP}$ $[_{NP_i}$ ±wh] - *e*] - t_i - PART - X
4. $[_{COMP}$ C_i - *ha*] - NP - (ADV) - PART - X - t_i - Y

In short, 1a and 3 b would become ungrammatical, whereas 2, 3a and 4 would still be

a X-domain rule' is a secondary notion under this interpretation. In order to make this interpretation clear in the definition of X-domain rule and the like, I propose the following, second generation sharpening of the theory of applicational domains:

(176) *Condition on Applicational Domains*
A rule R_i cannot apply to a phrase X unless the structural index of R_i contains a constant C_k and the C_k analyzed by R_i is such that
a. C_k is properly contained in X and
b. there is no phrase Y such that X properly contains Y and Y properly contains C_k and
c. C_k is satisfied by a factor changed by the rule and
d. C_k could be base-generated under X.

(177) *Definition of X-Domain Rule*
A rule R_i is a X-domain rule *iff* there is a derivation that is not blocked such that R_i has been applied to a phrase X.

Now let us go back a little and see what I have claimed up to now. I contend that given the Condition on Applicational Domains and the Definition of X-Domain Rule the theory will exclude the formalization of SAI as a rule moving AUX over a variable and will impose an extrinsic ordering 1. *Wh*-Movement 2. SAI if and only if *Wh*-Movement moves a Subject phrase and SAI a weakly stressed auxiliary *do*. Crucial is the formalization of SAI as a rule moving AUX over an adjacent Subject phrase. Evidently, these results are theory-based. The observations that

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grammatical, which would justify the assumption of an underlying *ha* in spite of the absence of *ha* in subordinate clauses. Note that the hypothetical system (ii) would be undesirable from a functional point of view, because Swedish would need al sorts of circumlocutions to express simple questions like 'Who has done that' or simple declaratives like 'John has visited his uncle'. In one respect the state of affairs in (ii) is similar to the state of affairs concerning *do* in English and indefinite *es* in German. Both of them are erased by an obligatory deletion rule. The root occurrence of *es* suffices as evidence for an underlying particle *es*. And if in English there were no emphatic *do* and if negation were generated between NP and AUX (as it is in Swedish), root occurrences of *do* would still suffice for assuming an underlying auxiliary *do*, even though it would never show up in subordinate clauses. Note furtermore that if English were to change from SAI-I to SAI-II, surface structures like in (iii) would be possible only if *do* is emphatically stressed:

(iii) $[_{COMP}\,[_{NP_i}\,\pm wh\,]$ - *do*] - t_i - V - X

However, if in this hypothetical state of affairs *Do* Erasure were made an optional rule, structure (iii) would be the sole surface structure in the case of a Subject moved by *Wh*-Movement or Negative Preposing.

have been discussed, i.e. (166)-(169) and (174)-(175), do not warrant such a conclusion, although they do not militate against it either. Both formalization (172) (henceforth: SAI-I) and (173) (henceforth: SAI-II) offer themselves as descriptions of what is going on, provided *Do* Erasure is taken into account. It is evident that a decision in favor of SAI-I is a decision in favor of the Condition on Applicational Domains. Otherwise output (171) does not make any sense, and SAI-II could be chosen as well. And a choice in favor of SAI-II definitely is a choice against the Condition on Applicational Domains. Thus it is crucial that the formalization of SAI-I allows a nonapplication of that transformation. And so, if independent evidence could be found that shows that SAI does not have to apply if a subject is extracted by *Wh*-Movement, SAI-II can be rejected and SAI-I can be accepted, which implies that indirectly the Condition on Applicational Domains is confirmed. However, note that I do not have to provide that evidence, since the theory outlined in this section and the preceding one makes sense out of the Swedish and German data and so forces us to accept SAI-I, unless we want to give up the explanation for the Swedish and German cases. Nevertheless, additional evidence can be provided:

Consider the following sentence:

(178) Which American has climbed Mount Everest in 1972 and will climb Mount Ararat next year?

It is plausible that (178) contains one and only one complementizer (occupied by *which American*). A derivation of (178) from a structure underlying (179) is unlikely:

(179) Which American has climbed Mount Everest in 1972 and which American will climb Mount Ararat next year?

Sentence (178) is one conjoined question about one American, (179) contains two questions about two Americans who are not supposed to be the same. A deletion rule relating (178) to (179), while causing this change in meaning, is not feasible. I do not know of any deletion rule that is that drastic in impact. So this analysis must be rejected.[46] Now two analyses can be proposed for (178): Either *has ... next year* is a conjunction of two VPs or a conjunction of two Ss. Note in advance that it does not matter which analysis is chosen. We may conclude from (178) that SAI did not apply, which is an argument in favor of SAI-I and against SAI-II. The

46. Note that sloppy identity is not a counterexample to this claim, because that phenomenon is dependent upon the 'sloppy' features of anaphoric pronouns (see Williams 1977a).

reason why SAI did not apply to (178) is the same for both analyses and can be dealt with under one heading. That will be the S-analysis.[47] The S-analysis requires that *which American* in (178) be extracted from two Subject positions in two respective Ss and so that the two respective Subject phrases have been collapsed in complementizer position. I assume that the indices of the two different positions are retained, as indicated in (180), so that *which American*$_{i,j}$ binds two traces. This implies, furthermore, that surface interpretation in case of (178) is necessary, which is hardly controversial.[48]

(180) $[_{COMP}$ Which American$_{i,j}$] $[_S$ $[_S$ t_i has climbed ME in 1972] and $[_S$ t_j will climb MA next year]]

This type of extraction is called across-the-board extraction. Two across-the-board extractions have applied to the structures underlying the following sentences:

(181) a. Which mountain has John climbed in 1973 and Peter in 1974?

b. Which mountain has John climbed in 1973 and Peter photographed in 1974?

Again a deletion analysis deleting *which mountain has* is implausible. The structure of (181)a without gapping will be:[49]

(182) $[_{COMP}$ Which mountain$_{i,k}$ has$_{j,l}$] $[_S[_S$ John t_j climbed t_i in 1973] and $[_S$ Peter t_l climbed t_k in 1974]]

The deletion analysis would also derive sentences that are ungrammatical and would never be derived under the across-the-board analysis. Consider the following ungrammatical deletion of *which mountain* in (183):

(183) a. Which mountain did John Climb in 1973. Which mountain will Peter photograph this year? And which mountain will Carl climb next year?

47. Compare Emonds (1976) and Akmajian and Wasow (1975). The arguments in favor of a separation of AUX and VP do not militate against the idea of both of them being part of a larger VP or Predicate Phrase.

48. Compare Chomsky (1976)a.

49. An across-the-board analysis for examples like (181) was first proposed by Edwin Williams in a talk to the Algemene Vereniging voor Taalwetenschap in the Netherlands (Jan. 1975). A formal discussion of across-the-board extraction can be found in Williams (1977)b, where *Wh*-Movement in relative clauses is dealt with. Across-the-board extraction is necessary if Williams's C/A Principle is valid (see Williams 1977b), which requires that Gapping be applied to conjoined Ss and not to conjoined $\bar{S}$s (compare (181)a).

b. *Which mountain did John climb in 1973, will Peter photograph this year and (will) Carl climb next year?

A sentence like (183)b is 'grammatical' if and only if it constitutes sort of a list in a text, something like the following:

(184) Which mountain
- did John climb in 1973,
- will Peter photograph this year, and
- will Carl climb next year?

A perfect quiz show question for the mountaineering club, but not a grammatical sentence. The across-the-board analysis would never derive this sentence. Why? In order to be an example for across-the-board extraction, sentence (183)b has to collapse in one complementizer not only the three objects of the three respective sentences but also the three auxiliaries *did*, *will*, and *will*. Now *will* and *will* can be collapsed because they are phonologically identical, but *did* and *will* can not. Thus (183)b is out because *will* is not in the right position according to SAI (whether SAI-I or SAI-II): It should be to the left of *John*. But that is impossible by the Recoverability Condition. On the other hand the across-the-board analysis will derive (181) because the two auxiliaries *has* can be collapsed. Now let us go back to sentence (178). Why is this sentence grammatical? *Which American* has been extracted across-the-boardly. But evidently *has* and *will* have not been extracted at all and so do not have to collapse. A similar remark applies to a derivation of (178) by means of two conjoined VPs. The conclusion that SAI cannot be SAI-II is inevitable, because that formalization requires that every auxiliary be moved to COMP, which is not correct witness (178). This implies that the formalization of SAI as SAI-I (i.e. (172)) is descriptively motivated. Sentence (178) will be derived by applying *Wh*-Movement and SAI in that order to (185), so that SAI is bled by *Wh*-Movement:

(185) COMP $[_S$ $[_S$ which American has climbed ME in 1972] and
$[_S$ which American will climb MA next year]]

The inverse order 1. SAI 2. *Wh*-Movement yields derivations that are sometimes, if the auxiliaries are not phonologically identical, blocked, as would happen in the case of (185).

So it has been established that SAI-II must be rejected and that SAI-I is an acceptable formalization of the process of Subject AUX Inversion. This implies that indirectly the Condition on Applicational Domains is confirmed. And given that condition we are justified in assuming an ordering 1. *Wh*-Movement 2. SAI solely on the basis of the difference between (166) and (167) on the one hand and (168)a1 and b on the other

hand if we want to derive (168)b. But we do not have to state an extrinsic ordering. The ordering of the pertinent rules is free but constrained by the Condition on Applicational Domains.

6. Conclusion

It has been shown that it is possible to define all root preposing transformations as rules involving COMP. This idea is a sharpening of ideas found in Higgins (1973), Williams (1974), Den Besten (1975), Koster (1975)a and Emonds (1976). This result can be attained by the combined use of the Condition on Applicational Domains (176) and the Definition of X-domain Rule (177), which constitute an elaboration of Williams's ideas about applicational domains (William 1974). Application of Chomsky's Upgrading Principle (101) (Chomsky 1976a) as interpreted in (100) to *Wh*-Movement yields the distinction between S and $\bar{S}$. If we assume that root preposings are transformations applying to the highest subphrase of a root $\bar{S}$, then — by (177) and (176) — the complementizer must be the landing site, as long as there is no clear evidence for other constituents at $\bar{S}$-level.

Secondly, it has been shown that if we assume that Complementizer Attraction Transformations are adjunction rules and not substitution rules, and if we assume the Counterdeletive Ordering Principle (135) the theory can predict the antiroot behavior of rules like Swedish *Ha* Deletion and German *Haben/sein* Deletion, which rules happen to be a subset of a larger class of deletive rules that are either fed or bled by root transformations. Thus Emonds's distinction between root and nonroot *rules* is justified, although a special combination of rules can define antiroot *phenomena*. A minor result of these assumptions is that the ordering 1. *Wh*-Movement 2. SAI in English is ensured in exactly that set of cases that are usually brought up in order to justify a general extrinsic rule ordering of *Wh*-Movement and SAI, and that SAI must indeed be formalized as a rule moving an auxiliary over an adjacent NP, as is usually assumed.

Thirdly, I have proposed that the theory define marked and unmarked root structures in terms of applications and nonapplications of root transformations. This proposal has some implications for text grammar, since text grammar sometimes requires the possible combination of a marked root structure with an unmarked one, for instance the Dutch contrastive texts in (64), or the combination of two unmarked root constructions, for instance English Tag Questions in (115). Over and above the application or nonapplication of root transformations text

grammar may require the application of other rules, like VP Deletion in the case of Tag Questions. English grammar seems to be marked in terms of the theory in that it defines marked and unmarked root structures not only in terms of applications and nonapplications of root transformations but also in terms of applications and nonapplications of root transformations plus stylistic rules. The occurrence of root structures in English subordinate clauses must be the result of a reanalysis of S reduced and is a marked phenomenon in view of the fact that root structures do not occur in Dutch or German subordinate clauses.

APPENDIX I

'Conjunctive discourse' in German

In German a phenomenon can be found that could be interpreted as a counterexample to Emonds's claim that no transformation will apply to subordinate clauses. Consider the following examples that have been taken from Bach and Horn (1976):

(1) Er sagte, daß er morgen komme
He said, that he tomorrow comes (conjunctive)

(2) Er sagte, er komme morgen
He said, he comes (conj.) tomorrow

The usual interpretation of the phenomenon at hand, which can also be found in Bach and Horn (1976), is that it is possible to have root word order in the complements of verbs like *sagen* (say), provided the verb be in the conjunctive mood. The latter condition is obligatory. Indicative verbs are excluded in the pertinent constructions. Compare:

(3) *Er sagte, er kommt morgen

However, this sentence is grammatical if *er kommt morgen* is a quote, i.e. is a sentence quoted in direct discourse:

(4) Er sagte: 'Er kommt morgen.'
He said: 'He comes (indicative) tomorrow'

In that case *er* and *er* are necessarily disjoint in reference. Now sentence (2) is ambiguous. Either *er* and *er* are disjoint and then (4) is a possible variant for (2); or *er* and *er* are coreferent and in that case (4) will not be a variant of (2) but (5) will:

(5) Er sagte: 'Ich komme morgen'
He said: 'I come (ind.) tomorrow'

Thus there happens to be a clear distinction between the use of pronouns

in the case of direct discourse ((4) and (5)) and the use of pronouns in the case of conjunctive quotation (see (2)). The fact that (2) is ambiguous and (4) is not seems to be sufficient evidence for claiming that the complement in (2) is a subordinate clause since its Subject has the same anaphoric freedom as the Subject of the complement in (1). This interpretation of the pertinent facts seems to be incompatible with an approach that salvages the theory of root transformations by optionally redefining complements of verbs of saying as root sentences. In the following paragraphs I will present evidence that neither approach is right. A complement like *er komme morgen* in (2) is not a subordinate clause but a root sentence in spite of its pronominal usage which is the same as in subordinate clauses.

There are three pieces of evidence to substantiate this claim: Firstly, one can quote a whole text in the conjunctive, even if that text contains questions. Secondly, a conjunctive quotation sentence does not have to follow *sagen* immediately. It can be be seperated from *sagen* by a subordinate clause introduced by *dass* (that). Thirdly, it is not necessary for verbs of *saying* to appear in the context of conjunctive quotations at all.

An example of *sagen* followed by a text, including a question:

(6) Er sagte, er wäre nicht damit einverstanden. Der Karl
He said, he did (conj.) not agree. Charles
wäre ein netter Bursche, wenn er nicht zuviel
was (conj.) a nice guy when he not too much
getrunken hätte. Aber man wüßte ja, daß das
drunk had (conj.). But one knew (conj.) that that
normalerweise nicht der Fall wäre. Warum hätte man
usually not the case was (conj.). Why had (conj.)
ihn überhaupt eingeladen? Der wäre ja nicht interessiert
one him at all invited? He was (conj.) not interested
an Bürgerinitiativen.
in Citizens' Committees.

The importance of the conjunctive interrogative embedded in a conjunctive text preceded by *sagen* is clear. In absence of such a question one might claim that this conjunctive text is a coordination of *dass*-complements to *sagen* that have been transformed into conjunctive quotations. The underlying text might look as follows:

(7) Er sagte, daß er nicht damit einverstanden wäre. Daß der Karl ein netter Bursche wäre, wenn er nicht zuviel getrunken hätte. Aber daß man ja wüßte, daß das normalerweise nicht der Fall wäre. (...)

This is a possible text, or, say, sentence. But the interrogative constitutes a stumbling block. At the point where this question pops up, we have to turn to an independent sentence strategy, after which a return to the subordinate clause strategy is impossible. Compare the following text:

(8) Er sagte, daß er nicht damit einverstanden wäre. Daß der Karl ein netter Bursche wäre, wenn er nicht zuviel getrunken hätte. Aber daß man ja wüßte, daß das normalerweise nicht der Fall wäre. Warum hätte man ihn überhaupt eingeladen? Der wäre ja nicht interessiert an Bürgerinitiativen. (*Daß der ja nicht interessiert wäre an Bürgerinitiativen).

(9) Er sagte, daß er nicht etc. ... der Fall wäre. *Warum man ihn überhaupt eingeladen hätte.

The text in (9) demonstrates that the interrogative in (6) and (8) cannot be derived from a complement to *sagte*. The following two texts may be superfluous but they confirm my claim that conjunctive questions may occur in texts that are dependent upon verbs of saying, whereas they cannot be derived from underlying *wh*-complements:

(10) Wir glaubten ihm ein Gefallen zu tun und luden ihn ein
We believed him a pleasure to do and invited him
zum gemeinsamen Musizieren am Dienstagabend. Aber
for together playing music Tuesday evening. But
er sagte (erwiderte) wütend, warum hätte man ihn
he said (answered) angrily, Why had (conj.) one him
eingeladen? Er hätte ja kaum Zeit selber zu musizieren.
invited? He had (c.) hardly time himself to play music.

(11) *Wir ... Dienstagabend. Aber er sagte (erwiderte) wütend, warum man ihn eingeladen hätte. Daß er ja kaum Zeit hätte selber su musizieren.

What do we have to conclude from these examples? A minimal conclusion would be that conjunctive questions dependent upon some verb of saying somewhere in a text are root sentences. But once that concession is made, the defence line of those who want to maintain an analysis that derives conjunctive discourses from underlying subordinate clauses starts crumbling. The next concession must be that conjunctive sentences following such questions cannot be derived from underlying subordinate clauses either, witness the ungrammaticality of subordinate clauses following conjunctive questions (compare (8) and (11)). The fact that conjunctive declarative sentences preceding conjunctive questions could be derived from underlying subordinate clauses witness (6) and (7), can hardly serve as a real argument against calling these declaratives

independent sentences. The last straw, and in fact the first and sole argument in favor of a subordination analysis, is the observation that pronouns in conjunctive quotations are used the same way as pronouns in subordinate clauses (see above). For instance, the Subject of the first conjunctive sentence in (6) may not be changed into *ich*, although it can be corefent with the Subject of *sagte*. Such a change would bring about a change in meaning:

(12) a. Er sagte, ich wäre nicht damit einverstanden
He said, I did (conj.) not agree
b. Er sagte, daß ich nicht damit einverstanden wäre

Ich in (12)a refers to the speaker who utters (12)a, not to the Subject of *sagte*. There is no difference in this respect between conjunctive discourses and subordinate clauses, witness (12)b. However note that the same anaphoric system is applied in conjunctive questions and conjunctive declaratives following them. And for these sentences it has been established that they must be independent clauses. Ergo there is no convincing argument anymore for deriving conjunctive declaratives that are dependent upon verbs of saying from subordinate clauses. This implies that besides direct and indirect discourse German has a third way of quoting somebody, which combines features of both direct and indirect discourse. From direct discourse it borrows its root characteristics. From indirect discourse under verbs of saying it borrows its pronominal system and the use of the conjunctive.

This should suffice as evidence for a root analysis of conjunctive discourse. Nevertheless the other pieces of evidence referred to above are not without interest, because they show that conjunctive quotation has characteristics that distinguish it from direct and indirect discourse.

While considering (8) for other purposes we have seen that a conjunctive sentence does not have to start immediately after a suitable verb. Such a verb may first take a subordinate complement and then a conjunctive sentence. Another example is the following:

(13) Er rief mich an, um mir zu sagen, daß er nicht
He called my up in order me to tell, that he not
kommen könnte. Er wäre krank.
come could (conj.) He was (conj.) ill.

Interestingly enough, a sentence in direct discourse may not be substituted for *Er wäre krank* in isolation. A tag *sagte er* (said he) is required:

(14) a. *Er rief mich an, um mir zu sagen, daß er nicht kommen könnte. Ich bin krank. (*I* am ill)
b. Er rief mich an, um mir zu sagen, daß er nicht kommen könnte. Ich bin krank, sagte er.

Apparently, the mixture of direct discourse and indirect discourse characteristics suffices as a syntactic marker for the semantic subordination of *Er wäre krank*. This does not imply though, that *sagte er* may not be added to (13). Compare the following example:

(15) Er rief mich an, um mir zu sagen, daß er nicht kommen könnte. Er wäre krank, sagte er.

This minitext is all right.

Now that it has been discovered that conjunctive quotation does not need tags like *sagte er* and the like, it will not come as a surprise that conjunctive discourse does not need an introducing verb of saying at all. Consider the following texts:

(16) Aber er wollte nicht mitmachen. Es wäre ja
But he wanted not cooperate. It was (conj.)
unerhört, daß man nicht verstünde, daß er
outrageous (he said) that one not understood (c.) that he
sich weigerte mit solchen Faulenzern zusammenzuarbeiten.
refused (conj.) with such bums together-to-work.

(17) Das Telephon klingelte. Eine unbekannte Stimme kam
The telephone rang. An unknown voice came
aus dem Apparat. Man hätte sich die Sache noch
out of the apparatus. One had (c.) thought about it
mal überlegt, aber es wäre am besten, wenn
again (it was said), but it would be best, if
ich die Krokodiljagd finanzieren würde.
I the crocodile hunt finance would.

Verbs like *mitmachen* and *kommen* do not allow *dass*-complements. Compare:

(18) *Aber er wollte nicht mitmachen, daß es ja unerhört wäre, daß ...

(19) *Eine unbekannte Stimme kam aus dem Apparat, daß man sich die Sache noch mal überlegt hätte, aber ...

On the other hand the conjunctive quotations may be expanded by adding any suitable expression, as is exemplified in the following sentences:

(20) Aber er wollte nicht mitmachen. Es wäre ja unerhört, brüllte
shouted
er, daß ...
he

(21) Eine unbekannte Stimme kam aus dem Apparat. Man hätte sich die Sache noch mal überlegt, näselte der nasalized the
Unbekannte, aber ...
unknown person,

Thus, we may conclude that the very structure of conjunctive discourse has the same function as expressions like *said NP* in English. Direct discourse on the other hand needs such tags, although that is a gradual matter. Tags like *sagte er* are preferable for sake of clarity, but they are not indispensable with. Take for instance the following text:

(22) Das Telephon klingelte. Eine unbekannte Stimme kam aus dem Apparat.
'Man hat sich die Sache noch mal überlegt,' (hörte ich
'One has (ind.) thought about it again,' (heard I
den Unbekannten sagen), aber ...
the unknown say), but ...

This text without what has been added within parentheses gets even better, if *Wir haben uns* (we have (ind.)) is substituted for *Man hat sich*. Again, this is a gradual matter. The important thing to note is that conjunctive discourse does not need a verb of saying in its introduction or in a tag. This is in stark contradistinction to direct and indirect discourse. Indirect discourse needs a verb of saying in its introduction, the matrix clause. And direct discourse is preferably accompanied by a verb of saying.

Returning to what is the main topic of this Appendix, we may conclude again that there is no reason for the assumption that conjunctive quotations are subordinate clauses. First of all, there are cases of conjunctive discourse that cannot be derived from complements to verbs of saying since the necessary verbs are absent (compare (16) through (19)). Secondly, it is clear that conjunctive discourse can easily dispense with tags like *sagte er*. This makes conjunctive discourse an even stronger candidate for root-sentence-hood than direct discourse. And that in spite of the fact that conjunctive discourse is subordinate as regards the pronominal system it applies.

I have gone into this matter up to some length because German conjunctive discourse in texts like the one displayed in (2) looks like good evidence for the claim that under certain conditions root transformations may be applied to nonroot sentences. I was pleasantly surprised when it occurred to me that conjunctive discourse has a wider distribution, as I have shown in this Appendix. This having been established, there is even more reason to defend Emonds's position that root transformations

apply to root sentences and to root sentences only. Therefore, the data presented by Hooper and Thompson (1973) needs a reanalysis, probably along the lines indicated in this paper.

APPENDIX II

A morphosyntactic reanalysis for root transformations

Shortly after I finished my paper on the interaction between root transformations and lexical deletive rules, I started revising my ideas about the formal properties of Complementizer Attraction Transformations. The outcome of all this was that I assumed a more refined version of a substitutive analysis for these transformations without having to give up the Base-Generability Principle or its predictions as regards the auxiliary deletion rules discussed in the main text of this paper. This revised hypothesis concerning root phenomena and *Wh*-Movement was discussed in a short version of this paper presented at the 1978 GLOW Colloquium in Amsterdam and in a paper to the Annual Meeting of the LSA, December 1978 in Boston. A brief exposition of the core idea was taken up in two papers on Afrikaans (Den Besten 1978 and 1981a). (Usually people refer to the GLOW handout.)

There are a couple of considerations that can make one change one's ideas about Complementizer Attraction Transformations in general and Root Transformations in particular. First, note that the Verb Preposing rules I discuss in this paper without exception induce an obligatory rule of Complementizer Deletion. This complementary distribution of preposed finite verbs and lexical complementizers gives one the impression that Verb Preposing (SAI, Subject-Clitic $\bar{V}$ Inversion) substitutes the finite verb for COMP. However, V and COMP are not supposed to be identical or nondistinct, which seems to be a prerequisite for substitution, since we may assume that all substitution rules are structure-preserving, though not necessarily cyclic, in nature. In fact the solution is quite simple and will be discussed below. Second, root transformations as defined by Emonds (1976) possess the awkward property of being defined partly in terms of the formal operations they perform — as are structure-preserving transformations and local rules — partly in terms of ordering, since they have to apply at the final cycle. These properties should be seperated, if possible. More specifically, it would be nice, if the definition of root transformations could be reduced to the ordering statement (application to the highest subcycle of the final cycle), presuming that root transformations do not differ from structure-preserving transforma-

tions and local rules in the formal operations they perform. Third, root transformations share with the cyclic rule of *Wh*-Movement the property of being Complementizer Attraction Rules. Now *Wh*-Movement, being a nonlocal cyclic rule, should be a structure-preserving transformation. Thus, if an acceptable structure-preserving analysis can be devised for *Wh*-Movement, it is envisageable that a similar analysis for root transformations can be found as well. Finally, the fact that root phenomena like Constituent Preposing are bounded in nature is not an argument against a *Wh*-analysis for such phenomena (contra what I claim in the main text of this paper). One first has to consider whether the required type of *Wh*-Movement is bounded or unbounded in nature. It turns out to be the case that the required type of *Wh*-Movement in Dutch, i.e. D(emonstrative)-Movement is also fairly restricted in its domain of application. Therefore, I now believe that Koster (1975b, published 1978) and (1978) was right in applying Chomsky's *Wh*-analysis to Topicalization in Dutch.

These considerations lead to the following hypothesis: All Complementizer Attraction Transformations are of the following type:

(1)

X	-	$[+F_i]$	-	Y	-	$[_C+F_i]$	- Z
1		2		3		4	5
1		4		3		e	5

where C is some constituent, and
F_i is some morphosyntactic feature

One instantiation of this rule schema is the rule of *Wh*-Movement, where $+F_i = +WH$. The corresponding morphosyntactic landing site [+WH] is provided by the following expansion rule:

(2) $\bar{S} \rightarrow$ [+WH] [±T] S

The [+WH] position is generated outside the COMP-position [±T]. More features are needed besides [+WH]. Thus, Dutch and German syntax needs a demonstrative position [+D] instead of [+WH] for the derivation of some (Dutch) or most (German) Relatives and for the derivation of Left Dislocation. Via deletion of the demonstrative phrase in [+D] Left Dislocation structures can be transformed into Topicalization structures, as has been shown in Koster (1975b) and (1978):

(3) a. Je moeder die kan ik 't niet laten zingen ⇒
Your mother +D can I it not let sing
b. Je moeder *e* kan ik 't niet laten zingen

This way, most but not all of the cases that can be accounted for by means of the rule of Constituent Preposing can be described. However there is a couple of residual cases that require an alternative account. I

refer to Koster (1978) who deals with Subject pronouns and sentential adverbs in first position in declaratives. Also note that Negative Preposing does not permit a D-analysis:

(4) Nog nooit (*toen/*dan) is hij naar de opera geweest
Yet never (*then) has he to the opera been

It is conceivable that Negative Preposing in Dutch (and English) is another instantiation of rule schema (1) with $+F_i = +$ NEG.

In base rule (2) the position of the lexical complementizer is indicated as [±T], i.e. as [±Tense]. It is a well known fact that specific complementizers construe with specific classes of verb forms (usually not with specific tenses). Thus in English *that* and *if* (not *whether* - *whether* is a *wh*-word that for some reason or another cannot show up in root sentences anymore in Modern English) combine with finite verbs, while *for* is construed with *to*-infinitives. Similar observations can be made for Dutch: *dat* 'that' and *of* 'whether, if' are [+T] complementizers and *om* 'for' (only with PRO Subjects) requires a *te*-infinitive. If [±T] is taken as the defining categorial characteristic for complementizers, the position [+T] can be used for another instantiation of rule schema (1). It is clear that Verb Preposing (the general rule in Continental West Germanic and the Scandinavian languages, with such far outposts as Icelandic and Afrikaans), Subject AUX Inversion and the Clitic Verb Inversion rules in French are rules fronting finite verbs. Thus a redefinition of these rules in terms of [+T] is appropriate. Verb Preposing may now be renamed as Move Tense or Move T (on analogy with Move WH):

(5) *Move Tense (Verb Preposing)*

X	-	[+T]	-	Y	-	$[_V$+T]	- Z
1		2		3		4	5
1		4		3		e	5

This new formalization of the rule of Verb Preposing predicts that there will be Verb Preposing only if the corresponding lexical complementizer is absent — since the fronted finite verb occupies the complementizer position — and that there may be a lexical complementizer if the verb is not moved (modulo other rules such as *Wh*-Movement which may influence the presence of a complementizer).

This prediction is correct. Throughout this paper I had to assume a complementizer deletion rule induced by Verb Preposing. Move Tense makes this 'deletion' part of the Verb Preposing rule itself. The assumption of there being a complementizer deletion rule was mainly based upon a comparison of root sentences with the corresponding subordinate clauses. Also compare the following examples:

(6) a. Gelachen *dat* we *hebben*, gelachen!
Laughed that we have, laughed!
b. Gelachen *hebben* we *e*, gelachen!
Laughed have we *e*, laughed!

Sentence (6)a is an example of the marked Topicalization structure in Dutch discussed in sections 3.1. and 3.2.1. (compare (16) and (62) in the main text). The finite verb *hebben* is not preposed and the complementizer *dat* is present. Instead of this structure (which is rather frequent, especially in the spoken language) the 'normal' Topicalization structure with Verb Preposing can be used. In that case the complementizer eclipses, as is shown in (6)b. Similarly, the word order variation in the following pair of German clauses — a phenomenon also known in Dutch — can be readily accounted for along these lines:

(7) a. --, als $[_{[+T]}$ob] er es nicht gesehen hätte
--, as if he it not seen had (conjunctive)
b. --, als $[_{[+T]}$hätte] er es nicht gesehen
--, as had he it not seen

A similar phenomenon can be found in (mainly written) Dutch after nominalizations of verbs of saying and the like:

(8) a. de bewering als *zou* het ministerie dit nooit toestaan
the claim as would the ministery this never allow

If we undo Verb Preposing in this example, we get the complementizer *dat* 'that', not *of* 'if':

b. de bewering als *dat* het ministerie dit nooit *zou* toestaan

This construction is shunned however, because *als dat* is a socially stigmatized variant of *dat*.

Similar data from French, concerning *que* 'that', *si* 'if, whether' and Subject-Clitic $\bar{V}$ Inversion, taken from Dubuisson and Goldsmith (1976) were discussed in section 3.4. And also outside the Germanic and Romance language families relevant data can be found. Thus, consider the following Czech examples:

(9) a. --, *zda*(li) *učite* Česky
--, whether you-learn Czech
b. *Učite*(li) *e* Česky?
You-learn (Q) *e* Czech?

Czech possesses a variable question complementizer: it is either *zda* or *zdali*. Now *zdali* cannot be a compound (unlike the nonstandard question complementizer *ofdat* 'whether' in Dutch, which disappears under Verb Preposing), since the optional particle *-li* can be affixed to a fronted finite

verb as well. Apparently, *zda* occupies the [+T] position, whereas *-li* serves as an extra complementizing element with a position of its own.

The above hypothesis concerning the nature of Verb Preposing has been taken over by Koster (1978:12). Similar ideas are expressed in Coppen (1981), Evers (1981)a and b and (1982), Lenerz (1981), and McCray (1981). Also see Olsen (1982). Now, note that this structure-preserving analysis obviates Goldsmith's No-Complementizer Condition (Goldsmith 1981), which runs as follows:

(10) *No-Complementizer Condition (NCC)*
A transformation T may not apply to a sentence S_1 if S_1 is headed by a complementizer. (Goldsmith (2))

This condition is supposed to hold for Root Transformations. I do not know whether (10) is a correct generalization for all root phenomena (compare (6)a above), but note that all of the phenomena Goldsmith discusses (i.a. Subject-Clitic $\bar{V}$ Inversion) involve finite verbs that change positions with other constituents. Verb Preposing rules of the type presented by (5) or pseudolocal variants thereof can easily account for the correlation between root transformations and absent complementizers expressed in Goldsmith's NCC.

The assumption of complementizers like *dat/dass/that/que* and *of/ob/if/si/zda* being 'finite' elements of the categorial type [+T] provides us with a new insight into the phenomenon of the so-called 'agreeing subordinators' in Dutch and German. In many (if not all) of the nonstandard dialects of Dutch and German — but not in the standard dialects — subordinators (not necessarily complementizers) may agree in person with the Subject, or — for the matter — with the finite Verb. There are dialects with full paradigms for this secundary type of agreement, but in most dialects the paradigms seem to be incomplete. Note that this is person agreement only. The verbal endings in Dutch and German can be split into a Tense part and a Person part, as is indicated in the following examples:

(11)D	ze	lach-	Ø	-	en,	lach-	te	-	en, kwam - en
		STEM-	T	-	P	STEM-	T	-	P STEM - P
									PAST
	they	laugh				, laughed			, came

In these examples can be found a constant plural morpheme *-en*, a zero morpheme (or no morpheme at all) for present tense, a past tense morpheme *-te* (constant for all persons) with the weak verb *lachen* and no past tense ending at all for the strong verb *komen*, because such verbs incorporate past tense in their stems. It goes without saying that the two

endings *-te* and *-en* merge into one (*-ten*; unlike its German counterpart the *n* usually is not pronounced). Note that the past tense ending is never doubled onto the subordinator. Furthermore it has been shown by Goeman (1980) that the agreement ending on the subordinator is not always a duplicate op the person ending of the verb. Now compare the following nonstandard (Hollandic) Dutch examples:

(12) a. --, datt*e* ze komm*e*; --, ovv*e* ze komm*e*
--, that-plur. they come ; --, whether-plur. they come
b. --, dat(**e*) ze kom*t* ; --, of(-**e*) ze kom*t*
--, that(-*plur.) she comes; --, whether(-plur.) she comes

In these examples the complementizers *dat* 'that' and *of* 'whether' are inflected with the plural ending *-en* of example (11) (*n* not pronounced). By this ending the underlying *v* in *of* (compare the *b* in German *ob*) reappears which otherwise would be neutralized in word-final position. This *v* also shows up in spoken standard Dutch if a clitic with an initial vowel, for instance *ie* 'he', is put in the enclitic position (*ovvie* = *of ie* 'whether he').

These person endings must be generated in a position seperate from the complementizer position [+T] — which by the way yields the same T P sequence as in (11) —, because deletion of a lexical complementizer does not force a person marking to delete as well. Thus, many examples can be found in which interrogative or relative pronouns are immediately followed by such a person ending. Compare the following nonstandard German example:

(13) --, wenn*ste* komm*st*
--, when-you come

In this example the subordinator *wenn* (probably a *wh*-word) is followed by the person ending of the second person singular *-st* (compare the verb) which is glued together with the enclitic form of *du* 'you (sing.)' (probably *-te*). This combination *-ste* also occurs in examples with a Subject clitic following the verb, as in *Kommste*? = *Kommst du*? 'Do you come?'.

For more data on subordinator agreement see Goeman (1980) and the literature mentioned there. Unlike what Goeman claims to be the case subordinators can also agree with nonpronominal Subjects.

Remarks concerning chapter 1

R1. *Historical status*

As Appendix II of this chapter indicates, this article has a history of its own. The original paper, which was circulated in 1977 and which did not yet contain Appendix II, tries to improve upon Emonds' theory of Root Transformations (cf. Emonds (1976)). The resultant theory is in a sense rigidly "Structure Preserving" in that it is concluded on the basis of a theory of applicational domains that a Root Transformation like Verb Preposing (i.e. V-to-COMP) cannot be a substitution rule, so that all substitution rules will be cyclic in nature. The pertinent substitution analysis involves a special verbal slot next to COMP. Substitution of the finite verb for COMP itself is not considered due to a hidden assumption according to which substitutions should be "Structure Preserving" in a wider sense of the word in that the category of the element moved and the category of the landing site are identical or at least nondistinct. This theoretical edifice is partly destroyed in Appendix II where it is shown how Verb Preposing can be made a substitution rule.

The latter idea seems to be universally accepted and it has been followed by new research. Thus, many try to find a theory explaining why V-to-COMP is a Root Transformation. In this context I only mention Platzack (1983) and (1986), Koopman (1984), and Holmberg (1986). Also compare chapter 3. and Haider and Prinzhorn (1986). Furthermore it has been shown by Travis (1984) that V-to-COMP (actually: I-to-COMP) belongs to a set of so-called Head Movement rules if we assume that COMP is the head of $\bar{S}$. Also compare Chomsky (1986).

I will not try to evaluate this chapter in the light of the more recent literature in much detail. On the one hand the ideas about the description of Verb Second and Verb First phenomena contained in it seem to be part and parcel of present-day Generative Grammar, as I pointed out in the preceding paragraph. On the other hand this paper is somewhat old-fashioned due to the fact that it dates back to the late '70s. Thus no mention is made of CP or IP. More will be said about this below. Note that the Counterdeletive Ordering Principle (or: CDOP) discussed in section 4.1. in a way prefigures the ordering of the PF-component after the transformational component and S-structure in the standard T-model of Generative Grammar (cf. Chomsky 1981: 5 and 17). However, now

that V-to-COMP is redefined as a rule substituting the finite verb for COMP we have to make sure that it does not count as a deletive rule (erasing the underlying lexical complementizer) for the CDOP because otherwise V-to-COMP would count as a PF rule (which it certainly is not) with the disastrous consequence that the interactions between V-to-COMP and various lexical deletive rules discussed in section 4.1. cannot be predicted anymore. The solution to this minor problem is simple, though. Whether or not V-to-COMP erases a lexical complementizer, the discussion after the general definition of "deletive rules" in section 4.1. clearly indicates that only local deletive rules should be set apart by the CDOP because all remaining deletion phenomena can be handled by different mechanisms than the traditional deletion rules. Since V-to-COMP is not a local rule, a slight reformulation of the CDOP in the sense indicated above will do.

R2. *CP, Wh-Movement and V-to-COMP*

In this chapter much attention is payed to the distinction between an S-level and an $\bar{S}$-level, because it helps us — among other things — to define the domain of application for Root Transformations. Unfortunately, the CP analysis of the traditional $\bar{S}$ creates a problem for my definitions of applicational domains because the way they are formulated presupposes only one level above COMP and not two as is usual for the CP analysis (cf. Chomsky (1986)).

I will refrain from redefining the Condition on Applicational Domains (176) and the Definition of X-Domain Rule (177) here, because they belong to an older stage of Generative Grammar while many of the points made in this paper still hold in spite of the oldfashioned context.

Yet, introducing a CP with a level $\overline{C}$ between C(OMP) and CP and a Spec, CP immediately under CP makes it possible to make predictions for across-the-board applications of Complementizer Attraction Rules that differ from the predictions made by the traditional $\bar{S}$ analysis assumed in this chapter. In so far as I can see the CP analysis makes the right predictions, provided we make one assumption:

(i) Every X^i (max. $\geqslant i \geqslant 0$) may be coordinated

On the basis of this assumption it can be shown that the CP analysis and the traditional $\bar{S}$ analysis make different predictions for across-the-board applications of Complementizer Attraction Rules. First consider the predictions made by the $\bar{S}$ analysis. According to this analysis both the landing site for *Wh*-Movement and the landing site for V-to-COMP are at $\bar{S}$ level as is indicated in the following expansion rule:

(ii) $\bar{S} \rightarrow [+WH]\ \ [\pm T]\ \ S$ (= (2) of appendix II)

Therefore the prediction for across-the-board rule application is that there will be across-the-board *Wh*-Movement in Dutch or German root clauses only if there is across-the-board V-to-COMP. (Compare the discussion on of SAI and *Wh*-Movement in English to which I will return below.)

This prediction is incorrect. Consider the following Dutch examples. Both sentence (iii) and the sentences in (iv) are grammatical:

(iii) Welk dossier *wou* Pieter weggooien en Karel
Which file wanted Peter throw-away and Charles
bewaren?
keep?

(iv)a. Welk dossier *wou* Pieter weggooien en *wou* Karel
Which file wanted Peter throw-away and wanted Charles
bewaren?
keep?

b. Welke dossiers *heeft* Pieter vandaag doorgenomen en *zal*
Which files has Peter today gone-over and will
Karel morgen naar het archief terugbrengen?
Charles tomorrow to the archives back-bring?

The CP analysis indicated under (v) makes different predictions:

(v) $CP = [_{CP} \ldots [_{\overline{C}}\ C \quad IP\ ]]$

If we want to apply across-the-board *Wh*-Movement of some element to Sp, CP (i.e. the position indicated by the dots in (v)) we can make use either of a coordinated IP (= S) or of a coordinated $\bar{C}$. In the case of a coordinated IP across-the-board *Wh*-Movement in root sentences will be accompanied by across-the-board V-to-COMP and sentences like the one in (iii) will be derived. In the case of a coordinated $\bar{C}$ across-the-board *Wh*-Movement in root sentences will be accompanied by two instances of V-to-COMP and so sentences like those in (iv) will be derived. The relevant structures for (iii) and (iv)a. and b. as predicted by the CP analysis are indicated under (vi):

(vi)a. $[_{CP}\ WH_i\ [_{\overline{C}}\ V_j\ [_{IP}\ [_{IP} \ldots t_i \ldots v_j \ldots\ ]$ *en*
$[_{IP} \ldots t_i \ldots v_j \ldots\ ]]]]$

b. $[_{CP}\ WH_i\ [_{\overline{C}}\ [_{\overline{C}}\ V_j\ [_{IP} \ldots t_i \ldots v_j \ldots\ ]]$ *en*
$[_{\overline{C}}\ V_k\ [_{IP} \ldots t_i \ldots v_k \ldots\ ]]]]$

Therefore the CP analysis is to be preferred over the traditional $\bar{S}$ analysis.

Now if the CP analysis is correct we predict for Subject AUX Inversion

in English that both (vii)a. and (vii)b. are grammatical:

(vii)a. Which mountain has John climbed in 1973 and Peter photographed in 1974?

b. Which mountain did John climb in 1973, will Peter photograph this year, and will Carl climb next year?

Example (vii)a. corresponds to (181)b. in section 5. (Note that it may be more correct to use the auxiliary *did*.) Example (vii)b. corresponds to (183)b. and (184) in the same section.

The prediction made by the CP analysis is at variance with what I claim in section 5. Or at least, so it seems. Example (183)b. (= (vii)b.) is judged ungrammatical. But note that the evidence is ambiguous because immediately after that a context is suggested where this sentence can be grammatical. This can hardly surprise us because also Dutch across-the-board interrogatives of this type can only be used under special circumstances.

Therefore the data in (vii)a.-b. (= (181)b. and (183)b./(184) minus the star in (183)b.) can no longer be used to argue that V-to-COMP in English really is Subject AUX Inversion (SAI) and not a nonlocal rule of the type found in Dutch and German. In section 5. this (incorrect) conclusion was based upon the presumedly ungrammatical status of (vii)b. versus the grammaticality of (178) repeated here as (viii):

(viii) Which American has climbed Mount Everest in 1972 and will climb Mount Ararat next year?

If however both (vii)b. and (viii) are grammatical no conclusion can be drawn as to the S-structure position of the auxiliaries in (viii). They may both be in COMP (in which case SAI must be a nonlocal rule) or they may both be in AUX (= INFL) position (in which case SAI must be what it says it is: inversion of a Subject phrase and an AUX).

Therefore no conclusion can be drawn as to the domain of *Do* Erasure (deletion of unstressed *do*) in (ix)b.:

(ix)a1. *Who dîd sign the agreement?

a2. Who *did* sign the agreement?

b. Who signed the agreement?
(= (168) of section 5.)

Did can delete either in COMP or in AUX position. Yet, this is not a problem for the theory of applicational domains outlined in this chapter because this theory excludes an application of *Do* Erasure in COMP and so favors the idea of Subject AUX *Inversion* (modulo certain changes in the definitions due to the introduction of the CP analysis).

Now note that there is independent evidence against the nonlocal

nature of SAI in that adverbs may show up between a [+WH] Subject phrase and the finite verb. If SAI were a nonlocal rule we would expect the following example to be ungrammatical. However it is not:

(x) Who always speaks about Mozart?

Evidence of this type, though, raises new questions about the nature of *Do* Erasure and SAI. For instance if *Do* Erasure must be a local rule (as is assumed in this chapter) the underlying position of erased *does* in (x) must be between *always* and *speak*. But that implies that SAI cannot be semilocal given examples of the following type:

(xi) Which composer does John always speak about?

Yet, it is more reasonable to assume that erased *does* is on the left of the adverb, since lexical AUXes precede such adverbs.

Therefore *Do* Erasure cannot be a local rule. This is hardly problematic for the theory of lexical deletive rules proposed in this chapter because we may wonder whether the phenomenon of *Do* Erasure may be called a deletion phenomenon at all since the pertinent auxiliary never deletes completely in that its inflectional features are transmitted to the next verb.

It seems to me that we better analyze the phenomenon of *Do* Erasure as an instance of inflection lowering, as is argued in Pollock (1988). It seems most unlikely that this inflection lowering may start from COMP and then sent back to the AUX position from where it will be lowered onto the main verb, so that we may assume that also this variant of *Do* Erasure does not militate against the assumption that there is no V-to-COMP if the English root clause [+WH] Subject is moved to Spec,CP.

R3. *IP and the Base-Generability Principle*

In this study it is assumed that lexical items may only be erased by lexical deletive rules if they are in a position where they can be base-generated. This assumption is first introduced under (165) and is referred to as the Base-Generability Principle (or: BGP).

The BGP excludes deletion of Swedish *ha* and German *haben/sein* in COMP if V-to-COMP is analyzed as an adjunction rule. The same seems to follow if we analyze V-to-COMP as an operation substituting a finite verb for a position [+T] (= the finite COMP) because the finite verb cannot be base-generated in that position.

The introduction of the IP analysis for the traditional "bare S" of Generative Grammar creates a problem, though, if we apply this analysis to the following examples from German and Swedish respectively:

(i)a. --, weil er gelacht (hat)
--, because he laughed (has)
b. --, att John (har) sett boken
--, that John (has) seen book-the
(= (5) and (155)a. in this study)

Under the IP analysis we have to assume that *hat* and *har* have been created by movement of a verbal stem to an I(NFL) position. But then the BGP will block the deletion of *hat* and *har*.

Since V-to-INFL in German and Swedish must be local (cf. chapter 3.) we might of course introduce a principle excluding local V-to-INFL rules. But this seems to be ad hoc because it may remove a problem for the BGP but it creates one for the theory of finite verbs. Another way out might be to assume that in German and Swedish INFL lowers onto the verb.

However, there may be another way out. Note that V-to-INFL and V-to-COMP (or rather: INFL-to-COMP) have different effects in terms of word-formation. V-to-INFL creates a new word out of a verbal stem and the inflectional material of INFL (which may be invisible in the resultant word) whereas V-to-COMP (INFL-to-COMP) is not an instance of word-formation: no extra morphology is ever added to a finite verb if it moves to COMP. We may furthermore assume that INFL is the head of the finite verb and that the finite verb is created either by adjoining V to INFL or by substituting V for a verbal slot inside the word representing INFL. V-to-COMP (INFL-to-COMP) on the other hand substitutes INFL for COMP and even if we assume that COMP and INFL share certain features (cf. Appendix II) the feature matrix for INFL will be richer than the feature matrix for COMP. Therefore deletion of finite *haben* (also *sein*) and *ha* in INFL position does not have to violate the BGP whereas deletion in COMP position certainly does.

Future research must tell us whether the above suggestion is on the right track. If not, the prospects for the BGP are bleak — at least if we do not want to permit INFL lowering. In that case it may be advisable to reanalyze lexical deletion rules as being governed by some sort of Empty Category Principle (ECP) besides the general condition of locality (for the ECP see Chomsky (1981)). Empty INFLs may then be licensed by a governing COMP, whereas empty INFLs in COMP position in root clauses will not be licensed because a root clause COMP is not governed.

R4. *An erratum*

The verb *učite* in the Czech examples in (9) of Appendix II should have a long vowel in the second syllable: *učíte*. Furthermore the gloss is

incorrect. It should be 'you-teach' (you plural or reverential). The gloss can be saved by putting a reflexive clitic *se* after *(li)*:

(i)a. --, *zda*(li) se *učíte* Česky
b. *Učíte*(-li) se *e* Česky?

Chapter 2

On the Presence and Absence of *Wh*-Elements in Dutch Comparatives*

1. Introductory remarks

1.1. Prospectus

In this study I want to consider one aspect of the question of whether Comparative Deletion in Dutch should be described in terms of *Wh*-Movement and subsequent deletion of the pertinent *wh*-element in COMP — a description in accordance with the theory proposed by Chomsky (1977). It would be nice if — in addition to the theoretical arguments presented in that paper — one were able to provide evidence for the syntactic presence of a *wh*-element in the COMP of a Comparative Deletion clause. The present study attempts to show that it is possible to construct an argument in favor of such an element in Dutch in spite of the fact that it will never show up phonologically. Sections 2 and 3 deal with comparative complements consisting of the particle of comparison *dan* 'than' followed by a clause that is introduced by a *wh*-element, more specifically a relative pronoun. This phenomenon might be interpreted as direct, phonological evidence for the *wh*-analysis of Comparative Deletion. It will be argued, though, that the pertinent constructions involve free relatives and that Comparative Deletion clauses derive from a different source. However, in section 4 it will be shown that the systematic difference between the comparative subordinators *dan* 'than' and *dan dat* 'than that' — corresponding to the application and non-application, respectively, of Comparative Deletion — can be accounted for by the *wh*-analysis in such a way that the absence of *dat* 'that' in the

*This article owes its existence to grant 30-32 of the Netherlands Organization for the Advancement of Pure Research (ZWO). I thank my reviewers — anonymous, as usual — for their comments. I regret not being able to answer all of their questions and remarks for reasons of space.

subordinator *dan* is dependent upon the (syntactic) presence of a *wh*-element to the right of *dan*.

In the following subsection, it is considered how the latter argument fits in with the discussion between the opposing theories proposed by Chomsky (1977) and Bresnan (1976a; 1977), respectively. The bulk of this tion will be devoted to establishing a restricted version of Bresnan's theory, called B″, that will be maximally different from Chomsky's theory (henceforth: C).

1.2. Theory C versus Theory B″

In his paper on *Wh*-Movement (1977), Chomsky lists the following general characteristics of that rule:

(1) a. It leaves a gap.
    b. Where there is a bridge, there is an apparent violation of Subjacency, the Propositional Island Condition (PIC), and the Specified Subject Condition (SSC).
    c. It observes the Complex Noun Phrase Constraint (CNPC).
    d. It observes *wh*-island constraints.

These properties follow from the theory as outlined in Chomsky (1973; 1977) and other papers, involving conditions like the Specified Subject Condition, the Propositional Island Condition and other cycle conditions, and the COMP-to-COMP Condition. The most salient feature of this theory is the successive cyclicity imposed upon the application of rules. For brevity I shall refer to this successive cyclic theory as C. Chomsky suggests that where we find the configuration (1) in some system of data, we can explain it on the assumption that the configuration results from *Wh*-Movement. He then proceeds by showing, among other things, that Comparative Deletion, an unbounded phenomenon, can be described in terms of *Wh*-Movement and subsequent local deletion of the *wh*-phrase moved in COMP position.

This theory has been most thorougly opposed by Bresnan (1976a; 1977). In her theory, the basis of which was laid in "On the Form and Functioning of Transformations" (Bresnan (1976b)), unbounded deletion phenomena, like Relative and Comparative Deletion, can be described in terms of unbounded deletion transformations observing a new type of subjacency condition that would better be called the Complex Phrase Constraint. Similarly, the unbounded phenomenon of *Wh*-Movement can be described in terms of an unbounded transformation. Let us call this theory B. As things stand now, theory B prohibits neither successive cyclic *Wh*-Movement nor a *wh*-analysis for Com-

parative Deletion. Nor does it rule out a *wh*-analysis for Subdeletion.[1] There are many things I would like to say about the technical side of B, but I leave it at establishing these facts without elaborating on them, since any elaboration would go beyond the bounds of this article.

We may safely assume that Bresnan does not want to allow for successive cyclic *Wh*-Movement. Therefore, let us envisage a theory B′ that is equal to B plus a condition against extraction out of COMP. These are the strongest positions we can take: C, successive cyclicity, versus B′, unbounded transformations. Now note that even here there is some overlap between the opposing theories, because B′ still allows for a *wh*-analysis of Comparative Deletion. Actually, I do not see how such an analysis could ever be excluded, unless drastic measures are taken, like a prohibition against local deletions or a constraint on the delendum in that type of rules. Otherwise we have to resort to the evaluation metric of B′, which might throw out the *wh*-analysis as being the less highly valued solution. I am not sure whether that will be the case, since there is more to grammar than a controversy on how to derive unbounded deletion phenomena. Other considerations might make the *wh*-analysis the more highly valued solution, even within the assumptions of B′. Therefore, let us imagine a theory B″, obtained by adding to B′ a prohibition against analyzing unbounded deletion phenomena in terms of *Wh*-Movement. Now and only now have the positions been defined with sufficient clarity to find evidence that might support either theory, for now the theories have been made maximally different, which ensures that their predictions will be maximally different.

What sort of evidence do we need? We should distinguish between two issues: the controversy regarding successive cyclicity versus unbounded rule application, and the question of whether an unbounded deletion phenomenon with the properties summed up in (1) must be described in terms of *Wh*-Movement plus local deletion in COMP or in terms of an unbounded deletion rule. One may try to falsify the hypothesis of successive cyclicity while still clinging to the idea of a *wh*-analysis for certain deletions. On the other hand, if we were able to find one language for which the *Wh*-Movement hypothesis for unbounded deletions could be proven to be wrong, that might influence our views concerning

1. Note that I am talking about a theory, not about the personal commitment of Bresnan herself. From her papers we know that she opposes successive cyclicity and the *wh*-analysis for Comparative Deletion. As for Subdeletion, the Pied Piping problem dealt with in Bresnan (1976a; 1976b; 1977) can easily be described within the framework presented in Bresnan (1976b) by the proper application of the descriptive force of context predicates.

successive cyclicity. Clearly, Bresnan (1976a; 1977) has taken the latter course. Her Subdeletion argument focuses upon one of the side effects of *Wh*-Movement, namely, Pied Piping. However, there are more concomitant phenomena besides Pied Piping. A *wh*-phrase in COMP may trigger syntactic changes in its environment. For instance, the lexical complementizer may be deleted under influence of the *wh*-phrase, or this phrase may trigger some movement rule like Stylistic Inversion in French. Now the theories C and B″ make different predictions as to these side effects. Theory C predicts that a *wh*-element that has been deleted may still leave a trace in the form of one of these side effects. Theory B″ flatly denies the possibility of finding such a trace. I do not know of any overt evidence for successive cyclicity in Dutch comparatives. I intend to show here, among other things, that given a restricted theory of specified deletions it is reasonable to assume that Dutch comparatives involve a rule of *Wh*-Movement. It is up to the advocates of B″ (or, for that matter, B′) to show that *Wh*-Movement cannot possibly be involved in Dutch comparatives, which would necessitate the development of an alternative explanation for the relevant phenomena.

2. On the presence of *Wh*-elements[2]

2.1. Comparative Deletion and R-pronouns

Dutch comparatives exhibit all of the characteristics that — according to Chomsky (1977) — constitute a diagnostic for *Wh*-Movement. There is a gap (see (1)a)), as is indicated in (2)a; there is an apparent violation of Subjacency, the PIC, and the SSC (see (1)b and (2)b); Comparative Deletion observes the CNPC (see (1)c and (2)c), and it observes the *wh*-island constraints (see (1)d and (2)d):

(2) a. Hij heeft meer boeken besproken dan ik ooit —— zou
he has more books reviewed than I ever —— would
willen lezen.
like to read

2. It is understood that this article discusses only comparatives of inequality. Furthermore, the dialect described here is the dialect used for written, nonliterary, nonarchaic Dutch. It is spoken by a considerable portion of those whose native language is standard Dutch. The fact that many use *als* instead of *dan* is irrelevant for the points at issue.

b. Hij bleek langer te zijn dan ik dacht dat Piet
he turned out taller to be than I thought that Pete
gezegd had dat hij —— zou zijn.
said had that he —— would be

c. *Hij is intelligenter dan ik iemand ken die —— is.
he is more intelligent than I somebody know who —— is

d. *Zij wist meer dan ik vroeg wie —— wist.
she knew more than I asked who —— knew

Note that innone of these examples is *dan* accompanied by a *wh*-element. Thus, following Chomsky's approach, we are justified to posit a rule like (3):

(3) X - *dan* - [+WH] - -Y ⇒
1 2 3 4
1 2 e 4

This rule has been proposed by Van Riemsdijk (1977). However, Van Riemsdijk notes that if the postulated *wh*-element is the [—HUM] object of a preposition, rule (3) may not be applied:

(4) a. Jan heeft meer geld verdiend dan waar zijn
John has more money earned than where (= what) his
vrouw —— op gerekend had.
wife —— on counted had

b. *Jan heeft meer geld verdiend dan zijn vrouw op gerekend had.
(Van Riemsdijk's (9b, c))

Fortunately, the fact that *waar* belongs to the set of so-called R-pronouns makes it easy for us to reformulate (3) as (5):

(5) X - *dan* - $\begin{bmatrix}+\text{WH}\\-\text{R}\end{bmatrix}$ - Y (Van Riemsdijk's (8'))
1 2 3 4 ⇒
1 2 e 4

R-Pronouns constitute a special subset of the set of all pronouns. As we can learn from (6)a, a partial list of anaphoric pronouns, *er* serves as a suppletive variant for *het*, if *het* is the object of a preposition. And not only must *er* be substituted for *het*, there is also an obligatory permutation of the preposition and *er (op het ⇒ op er ⇒ erop*). The same processes apply to the set of interrogative pronouns (see (6)b) and to the set of relative pronouns (see (6)c):

(6) a. hij/hem het er op hem * op het * op er erop
he/him it there on him on it on there thereon

b. wie wat waar op wie * op wat * op waar waarop
who(m) what where on whom on what on where whereon

c. die dat waar op wie * op wat * op waar waarop
which which where on whom on what on where whereon

Now if we assume that all locative pronouns are [+R] and that all nonlocative ones start out as [—R], some of them becoming [+R] by a rule like (7), rule (5) will ensure that neither nonhuman prepositional objects nor locatives will delete when they are the *wh*-elements of the postulated Comparative *Wh*-Movement rule.

(7) X - P - $\begin{bmatrix}\text{—HUM}\\ \text{—R}\end{bmatrix}$ - Y

1 2 3 4 ⇒

1 2 [+R] 4

Thus, (4)a and (8)a are acceptable and (4)b and (8)b are not:

(8) a. Hij is in meer landen geweest dan waar Piet geweest is.
he has in more countries been than where Pete been has

b. *Hij is in meer landen geweest dan Piet geweest is. (Van Riemsdijk (10))

Before subjecting Van Riemsdijk's assumptions to closer scrutiny, one more thing must be said about the R-pronouns. R-pronouns are the sole NPs that may be extracted from a PP. All other NPs — whether pronominal or not — require Pied Piping:

(9) a. i. Met jouw vader /hem wil ik nooit meer zaken doen.
with your father /him want I never anymore business do

ii. *Jouw vader/hem wil ik nooit meer zaken met ____ doen.

b. i. die acteur over wie zij zulke wilde dromen heeft
that actor about whom she such wild dreams has

ii. *die acteur wie zij zulke wilde dromen over ____ heeft

c. i. Met welke student/wie wil zij dan samenwerken?
with which student/whom wants she then cooperate

ii. *Welke student/wie wil zij dan met ____ samenwerken?

d. i. het huis waarvan zij altijd droomt
the house whereof she always dreams

ii. het huis waar zij altijd ____ van droomt

e. i. Waarmee heeft ie dat gedaan?
wherewith has he that done

ii. Waar heeft ie dat ____ mee gedaan?

Note that instead of (4)a, (10) is allowed as well:

(10) Jan heeft meer geld verdiend dan waarop zijn vrouw gerekend had. (Van Riemsdijk (9)c)

So much for the R-pronouns.[3]

2.2. Phrasal vs. sentential comparatives

Now the question is whether the sentences (4)a, (8)a, and (10) are genuine examples of comparative structures with overt *wh*-pronouns. An alternative interpretation might be that the *dan*-phrases consist of *dan* and a free relative. In that case, the structure of these sentences would be on a par with the structure of sentences like those in (11):

(11) a. Jan heeft meer geld verdiend dan het geld waar zijn
John has more money earned than the money that his
vrouw op gerekend had.
wife on counted had

b. Hij heeft meer mensen gesproken dan alleen Bronisch en
he has more people talked-with than only Bronisch and
Arend
Arend

It will become clear in the course of this article that it is not at all easy to justify either analysis for a sentence like (4)a, although there are other sentences for which it is clear that their *dan*-phrases contain free relatives.

In Bresnan (1973; 1976a; 1977), it is assumed that the comparative particles *than* and *as* are complementizers. Let us assume that this is true for *dan* as well. That means that we must analyze the sequence *dan waar* in (4)a as: lexical complementizer plus *wh*-phrase. Such a sequence is exceptional, though, in that the usual serialization of preposee and lexical complementizer in Dutch is exactly the opposite:[4]

(12) a. i. de jongen aan wie (dat) Jan het probleem had
the boy to whom (that) John the problem had
voorgelegd
presented

ii.*de jongen dat aan wie Jan het probleem had voorgelegd

b. i. Ik vraag me af, wat (of) ie gezien heeft.
I wonder what (if) he seen has

ii. *Ik vraag me af, of wat ie gezien heeft.

3. For more facts concerning the description of R-pronouns and PPs in general, see Van Riemsdijk (1976a; 1978).

4. More information concerning Complementizer Attraction rules appears in Den Besten (1977).

c. i. Een boeken dat ie heeft
'a books' that he has
'So many books he has.'
ii. *Dat een boeken ie heeft.

(13) a. *Jan heeft meer geld verdiend waar dan zijn vrouw op
b. Jan heeft meer geld verdiend dan waar zijn vrouw op
gerekend had.
gerekend had. (= (4)a)

This looks like supporting evidence for the free relative hypothesis, but it is not. It is true that this hypothesis predicts a sequence *dan* + *wh*-phrase, but the same sequence can be predicted by the hypothesis of Comparative *Wh*-Movement as well. Everything depends upon the categorial analysis of *dan*. The fact that *dan* is followed — and not preceded — by the *wh*-element is already one argument against analyzing it as a complementizer.[5]

Suppose then that *dan* is a preposition and has an S' (= $\bar{S}$) in its domain. This implies that *dan* immediately precedes a complementizer that will be the landing site for the *wh*-phrase of Comparative *Wh*-Movement. Given these assumptions, the structure of (4)a will be as follows:

(14) Jan heeft meer geld verdiend $[_{PP}$ dan $[_{S'}$ $[_{COMP}$ waar] zijn vrouw $[_{PP}$ t op] gerekend had]]

Therefore, the Comparative *Wh*-Movement analysis is able to predict the sequence *dan* + *wh*-element. It does not come as a surprise that in spoken Dutch one hears once in a while *dan dat* 'than that' as an optional variant of *dan*, provided *dan* is not followed by a *wh*-element introducing the comparative clause (or the free relative, for that matter).[6] Furthermore, by analyzing *dan* as a preposition we eliminate an unjustified dual lexical analysis for *dan*. *Dan* may be a complementizer in sentences like (2)a, b, and perhaps also in (4)a, (8)a, and (10). But that categorization will not do in the case of the sentences in (11). The *dan*-phrases of these sentences cannot be expanded into full *dan*-clauses:

5. Note that at this point we are arguing within the bounds of the *Wh*-Movement analysis and are trying to find out whether this analysis can predict a sequence *dan* + *wh*-phrase.

6. Compare my remarks on subordinating conjunctions in section 4 below, and Van Riemsdijk (1978).

(15) a. *Jan heeft meer geld verdiend dan ie het geld verdiend
John has more money earned than he the money earned
heeft waar zijn vrouw op gerekend had.
has that his wife op counted had

b. *Hij heeft meer mensen gesproken dan ie alleen Bronisch
he has more people talked-with than he only Bronisch
en Arend gesproken heeft.
and Arend talked-with has

This is in striking contradistinction to the expandability of the *dan*-phrases in (16):

(16) a. Hij drinkt meer dan vroeger.
he drinks more than before

b. Zij heeft meer platen gekocht dan Karel.
she has more records bought than Charles

(17) a. Hij drinkt meer dan ie vroeger dronk.
he drinks more than he before drank

b. Zij heeft meer platen gekocht dan Karel (er) gekocht heeft.
she has more records bought than Charles bought has

Let us call the *dan*-phrases in (11) *phrasal* and those in (16) and (17) *sentential*, the difference being that phrasal *dan*-phrases contain the compared element, whereas in sentential *dan*-phrases the compared element has been deleted. I am assuming that the *dan*-phrases in (16) can be derived from the *dan*-phrases in (17) via Comparative Ellipsis, whereas the *dan*-phrases in (11) are base-generated. In the latter case, *dan* must be a preposition, or at least not a complementizer. If we assume that *dan* is a preposition under all circumstances, sometimes introducing a phrase, sometimes introducing a clause, we do not have to distinguish between two *dan*s equal in function but different in categorization. Thus, there happens to be ample evidence against the assumption that *dan* is a complementizer, which implies that the sequence *dan waar* in (4)a and (8)a cannot be used as counterevidence against the Comparative *Wh*-Movement hypothesis.[7]

7. In Chomsky and Lasnik (1977, appendix 1), similar (and other) arguments are presented to the effect that *than* is not a complementizer. Chomsky and Lasnik also reject the analysis of *than* as a preposition. Note that in Dutch comparative clauses, word order is subordinate, i.e. SOV. Therefore, regarding *dan*-complements as conjuncts to the matrix clause seems to me to be mistaken.

Those who want to defend the view that *dan* is a complementizer in a sentence like (2) may generalize their assumption by hypothesizing that *dan* is a complementizer both in sentential and in phrasal *dan*-complements. The difference between phrasal and sentential comparatives would then be brought about by conditions, as yet

This conclusion does not mean that there are clear arguments against the hypothesis that (4)a contains a free relative. Thus, either the *dan*-phrase in (4)a is sentential and (4)a is evidence in favor of the *wh*-analysis of Comparative Deletion, or this *dan*-phrase is phrasal and (4)a is neutral with regard to the controversy between theory C and theory B".

Now advocates of theory C might resolve this quibble as to whether certain *dan*-complements contain S's or free relatives by proposing to

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unknown, upon the rule of Comparative Ellipsis (compare Bresnan (1973)). Such linguists may point out that there is no difference between the respective constructions as far as case assignment is concerned. In elliptical sentential *dan*-phrases, the remaining NPs retain their original case assignment, as we can see if these NPs are pronouns:

(i) Hij heeft haar vaker gezien dan zij (nom.) hem (obl.).
he has her more often seen than she (subj.) him (obj.)

(ii) Jan heeft haar vaker ontmoet dan jij (nom. /jou (obl.).
John has her more often met than you (subj.) /you (obj.)

If phrasal *dan*-complements were base-generated PPs containing nominal objects, my opponents might continue, one would expect assignment of the oblique case to the pertinent prepositional objects, since prepositions require that case. In fact, the prepositional object takes any case, depending upon its function:

(iii) Er zullen heus nog wel meer mensen worden uitgenodigd dan
there will surely yet more people be invited than
alleen hij (nom.) daar.
only he (subj.) there

(iv) Hij zal heus nog wel meer mensen uitnodigen dan alleen haar (obl.).
he will surely yet more people invite than only her (obj.)

In German, a language closely related to Dutch, this is even clearer, because any NP, whether pronominal or not, bears a case:

(v) Es werden schon mehr Leute eingeladen werden als nur dein
there will surely more people invited be than only your
Vater (nom.).
father (subj.)

(vi) Er wird schon mehr Leute einladen als nur deinen Vater (acc.).
he will surely more people invite than only your father (obj.)

This looke like a strong argument against base-generating phrasal *dan*-complements as PPs. However, it is not. Henk van Riemsdijk has pointed out to me that the preposition *behalve* 'except' in Dutch and its German counterpart *außer* have the same property of being transparent for case, though they may also take the oblique case and the third case respectively. Compare the following Dutch examples:

(vii) Behalve hij (nom.)/hem (obl.) wou niemand anders het doen.
except he/him (subj.) wanted nobody else it to-do

(viii) Behalve *zij (nom.)/haar (obl.) heb ik ook Rola uitgenodigd.
except *she/her (obj.) have I also Rola invited

analyze all sentential *dan*-complements as containing free relatives. Under such an analysis, the distinction between phrasal and sentential *dan*-complements would be nonexistent and deletion rule (5) would take care of the distribution of the *wh*-elements.[8]

This proposal can be tested, since there happen to be more examples of *dan*-complements containing a clause-introducing relative pronoun than the examples provided by Van Riemsdijk (1977), the pertinent pronouns being [—R]. Leaving out these pronouns results in grammatical sentences (compare rule (5)). However, this may not result in a change of meaning if the proposal under consideration is correct. That is what must be tested.

Let us first examine some of these comparative structures and find out whether they could contain free relatives or not:

(18) Jan krijgt nu al meer geld dan wat /*dat zijn
John gets now already more money than what /*that his
vader vroeger verdiende.
father once earned

(19) Hij houdt er andere spelregels op na dan die ik nodig
he applies other rules than which I necessary
acht.
deem

(20) Hij had meer mensen uitgenodigd dan die hij vorig jaar
he had more people invited than which he last year
had uitgenodigd.
had invited

The relative pronouns used in these sentences correspond to the relative pronouns that are used in free relatives. First of all, *wat* is the usual neuter relative pronoun in free relatives. Compare (18) with (21):

(21) Wat /*dat zijn vader vroeger verdiende, was een schijntje.
what /*that his father once earned was minimal

As for examples (19) and (20), *die* may be used as a plural relative pronoun in free relatives. Compare (22):

(22) Die hij vorig jaar had uitgenodigd, waren er dit jaar
whom he last year had invited were there this year
ook.
too

8. A potential problem is that rule (5) would violate Subjacency, because *dan* and the *wh*-element are separated by two cyclic nodes, NP and S'. The present section will come to a conclusion that will lead us to the hypothesis that specified deletion rules have to obey Subjacency. Similar considerations hold for an approach involving filters. Compare Chomsky and Lasnik (1977).

In that perspective, the object of *dan* in (4)a may be a free relative as well. Compare (23):

(23) Waar zijn vrouw op gerekend had, was een baan met een
what his wife on counted had was a job with a
dertiende maand.
thirteenth month

Thus, nothing militates against the assumption that the *dan*-complements in (4)a and (18)-(20) contain free relatives. This enables us to test the hypothesis that all sentential *dan*-complements are in fact phrasal ones and contain free relatives by comparing (18)-(20) with the corresponding sentential *dan*-complements. Sentence (4)a cannot be tested because no variant without a relative pronoun is available.

If the hypothesis we have in mind is right, we must be able to delete the relative pronouns in (18)-(20) without causing a change of meaning. Thus, we have to give up the hypothesis under consideration if this prediction is not confirmed.

The relative-less sentences corresponding to (18)-(20) are:

(24) Jan krijgt nu al meer geld, dan zijn vader vroeger verdiende.
(25) Hij houdt er andere spelregels op na, dan ik nodig acht.
(26) Hij had meer mensen uitgenodigd, dan hij vorig jaar had uitgenodigd.

There seem to me to be slight meaning differences between (18) and (24) and between (19) and (25), but they are difficult to spell out. However, in the case of (20) and (26) the difference in meaning is clear. The message conveyed by (20) is that the man who gave a party had invited those he had invited last year plus other people, which implies that he had invited more people than he had invited last year. On the other hand, sentence (26) tells us that this man had invited more people than he had invited last year, but we are not told whether he had invited everybody he had invited last year or not.

Furthermore, there is an important syntactic difference between (20) and (26). A possible variant of (26) is the following sentence:

(26′) Hij had meer mensen uitgenodigd, dan hij *er* vorig jaar had uitgenodigd.

The corresponding variant for sentence (20) is ungrammatical:

(20′) *Hij had meer mensen uitgenodigd, dan die hij *er* vorig jaar had uitgenodigd.

Er is the so-called quantitative *er*, I will come back to treat it in section 3.

Thus, we have found a sentence containing a free relative that cannot

be related to the corresponding sentence containing a sentential *dan*-complement. Since these sentences were supposed to be related to each other by means of deletion rule (5), there is little reason to uphold the hypothesis that all sentential *dan*-complements are in fact phrasal ones containing hidden free relatives. It is highly improbable that a deletion rule would ever be a meaning-changing rule.

2.3. Intermezzo

Let us review what we have found up to now. There are sentences like (4)a that seem to be overt evidence in favor of the theory that Comparative Deletion must be analyzed in terms of *Wh*-Movement. Under an alternative interpretation, (4)a does not contain a comparative *wh*-clause but rather contains a free relative in a *dan*-phrase. The fact that the *wh*-element in (4)a follows *dan* instead of preceding it can be accounted for under either interpretation, if we assume that the categorial status of *dan* is P and not COMP. Furthermore, it has been established that there is no room for a hypothesis that would reconcile these opposing analyses for (4)a by assuming that all sentential *dan*-complements are derived by means of rule (5) from phrasal *dan*-complements containing free relatives. Such a derivation yields changes in meaning, which is something a deletion rule is not supposed to do.

Therefore, as things stand now, we are in a quandary: we still have two possible analyses for (4)a. Either this sentence contains a comparative *wh*-clause or it contains a free relative; and perhaps this is a matter not of either-or but of both-and. This conclusion seems reasonable, because it enables us to account for the nonoccurrence of (4)b: Comparative Deletion affects APs, subjects, and objects, but not certain prepositional objects. Nevertheless, it would be nice if we were able to exclude one of the two possible analyses for (4)a. In that case, there would be no surface overlap between Comparative *Wh*-Movement and ordinary *Wh*-Movement inside free relatives. But the question is: which analysis must be excluded?

It will not be easy to exclude the possibility that (4)a contains a free relative. We know that there are two types of *dan*-complements: phrasal ones and sentential ones. The phrasal ones allow NPs as the object of *dan*. Consequently, they will allow free relatives as well, a proper subset of the set of all NPs. It is not feasible to attempt to exclude free relatives introduced by *waar* from the pertinent NP position. Thus, the other analysis for (4)a must be excluded — if that is possible.

In section 3, it will be argued that there is a principled reason why sentence (4)a must be analyzed as containing a free relative and why

sentence (4)b is ungrammatical. The remaining paragraphs of this section will be devoted to an argument to the effect that the Comparative *Wh*-Movement analysis for (4)a must be excluded. Two interpretation rules will be formulated for sentential and phrasal comparatives, respectively. The dual syntactic analysis for (4)a seems to be acceptable as far as these interpretation rules are concerned. However, there are several sentences corresponding to (4)a that must be analyzed as containing free relatives and free relatives only. This calls for a decription that excludes the Comparative *Wh*-Movement analysis for (4)a altogether while explaining the noncomparativizability of prepositional objects in Dutch. This way the ground will be prepared for section 3.

2.4. The semantics of sentential and phrasal comparatives

While discussing sentence (20) and sentence (26), we came across a clear difference in meaning. We decided that sentence (20) contains a free relative; thus, the pertinent *dan*-complement must be phrasal. The syntactic structure of (20) will be something like what is indicated in (27):

(27) hij had meer mensen uitgenodigd [$_{PP}$ dan [$_{NP}$Δ [$_{S'}$[$_{NP}$ die]] hij vorig jaar had uitgenodigd]]]

Correspondingly, the syntactic structure of sentence (26) will be something like what is indicated in (28) — at least, if we assume that Comparative *Wh*-Movement has taken place:

(28) hij had meer mensen uitgenodigd [$_{PP}$ dan [$_{S'}$[$_{COMP}$[$_{NP}$ e]] hij vorig jaar had uitgenodigd]]

Remember that in spoken Dutch the COMP is sometimes evidenced by the occurrence of the lexical complementizer *dat* 'that'.

Confirmation for the assumption that sentence (20) contains a phrasal *dan*-complement stems from the fact that its interpretation is identical in structure to the interpretation of sentence (29):

(29) Hij had meer mensen uitgenodigd dan (alleen maar) Karel
he had more people invited than (only) Charles
en Pieter.
and Peter

This a phrasal comparative. The constituent *(alleen maar) Karel en Pieter* is the element compared. The message conveyed by (29) is that the man who gave the party had invited Charles and Peter plus other people. And we know concerning sentence (20) that we are being informed that the man who gave the party had invited those he had invited last year plus other people.

Thus, we can attribute the difference in meaning between (20) and (26) to their difference in structure. The structure of (26), i.e. (28), corresponds roughly to a general comparative structure indicated in (30):

(30) $[_{S'_1}\ W_1\ [_{NP_1}[_{QP}\ \textit{meer}]\ x]\ W_2\ [_{PP}\ \textit{dan}\ [_{S'_2}\ W_3\ [_{NP_2}[_{QP}\ y]\ x]\ W_4]]]$

The semantic interpretation related to this structure roughly translates as follows:

(31) the Quantity of $[NP_1\ [_{S'_1}\ W_1\ NP_1\ W_2]]$ exceeds the Quantity of $[NP_2\ [_{S'_2}\ W_3\ NP_2\ W_4]]$

The corresponding syntactic structure and semantic interpretation for sentences like (20) and (29) are (32) and (33), respectively:

(32) $[_{S'}\ W_1\ [_{NP_1}[_{QP}\ \textit{meer}]\ x]\ W_2\ [_{PP}\ \textit{dan}\ NP_2]]$

(33) the Quantity of $[NP_1\ [_{S'}\ W_1\ NP_1\ W_2]]$ exceeds the Quantity of NP_2, and the set of NP_1s such that $[_{S_1}\ W_1\ NP_1\ W_2]$ properly includes the set denoted by NP_2

Suppose x in (32) is not a plural count noun (in the case of (20) and (29): *mensen* 'people'), but a mass noun, for instance *geld* 'money', as is the case in the next example:

(34) Hij heeft heus meer geld verdiend dan die armzalige
he has surely more money earned than those miserable
achthonderd gulden van jou.
eight hundred guilders of yours

The semantic interpretation of (34) must be adjusted correspondingly. We have to read "the set of NP_1s such that $[_{S'}\ W_1\ NP_1\ W_2]$" in (33) as "the set of units making up NP_1 such that $[_{S'}\ W_1\ NP_1\ W_2]$". Units making up money are interchangeable. Thus, the second clause of (33) is redundant as far as (34) is concerned, and we might skip it as well. Conversely, suppose x in (30) were a mass noun. We might — in that specific case —add to (31) a second clause to the effect that:

(35) the set of units making up NP_1 such that $[_{S'_1}\ W_1\ NP_1\ W_2]$ properly includes the set of units making up NP_2 such that $[_{S'_2}\ W_3\ NP_2\ W_4]$

It can easily be seen that (35) is redundant. But I have brought up (35) in order to show how similar the semantic interpretations of structures corresponding to (30) and (32) will be if x is a mass noun.

This being established, let us go a little further and assume that NP_2 in (32) is a relative structure. In that case, the respective semantic interpretations for (30) and (32) will be not similar but rather equivalent in structure. More specifically, suppose the postulated structures underlying (4)a were (36) and (37), corresponding to (30) and (32), respectively.

(36) $[_{S'_1}$ Jan heeft $[_{NP_1}[_{QP}$ *meer*] geld] verdiend $[_{PP}$ *dan* $[_{S'_2}[_{COMP}[_{NP_2}$ waar]] zijn vrouw op gerekend had]]]
$[_{NP_2}$ waar] = $[_{NP_2}[_{QP}\ y]$ geld]

(37) $[_{S'_1}$ Jan heeft $[_{NP_1}[_{QP}$ *meer*] geld] verdiend $[_{PP}$ *dan* $[_{NP_2}\ \Delta\ [_{S'_2}$ $[_{COMP}[_{NP}$ waar]] zijn vrouw op gerekend had]]]]

Now, given a pragmatic interpretation of Δ as *het geld* 'the money', the semantic interpretation of (36) according to (31), $I_{(31)}$ (36) = $I_{(33)}$ (37). This means that, as far as semantics is concerned, sentence (4)a may be attributed a dual syntactic analysis, the pertinent structures being indicated in (36) and (37).

Before finishing this section, I would like to shake a little our certainty that (4)a may have a dual syntactic analysis. There is evidence pointing in the opposite direction.

There are comparative structures containing [+R] *wh*-elements that cannot be interpreted as containing sentential *dan*-complements. Compare the following pair of examples:

(38) a. Hij heeft meer boeken op zijn boekenlijst gezet dan waar zijn
he has more books on his reading list put than what his
professor college over gegeven heeft.
professor on lectured has

b. *Hij heeft meer boeken op zijn boekenlijst gezet dan zijn professor college over gegeven heeft.

As in the case of (4)a, b, *waar* cannot be deleted. As for the semantic interpretation of (38)a, we are told that the number of books the student has put on his reading list exceeds the number of books his professor has lectured on. That is what we expect anyhow, given (31) and (33). But (38)a furthermore implies that the set of books the student has put on his reading list properly includes all of the books his professor has lectured about. This is an interpretation corresponding to (32)/(33), which implies a reading comparable to (30)/(31), as may be concluded from our discussion of the meaning of sentence (20) above. But there is no way to single out a specific reading corresponding to (30)/(31).

This is something unexpected. If (4)a may have two syntactic analyses, one corresponding to (30) and one corresponding to (32), sentence (38)a may have two as well. Note that the head noun of the comparative construction in (38)a is a plural count noun. Thus, we would expect to find two separate readings for (38)a, one corresponding to (31) and one corresponding to (33). However, we find only the semantic interpretation corresponding to (33). This means that (38)a has only one syntactic analysis, namely, the one corresponding to (32), and that *waar* in (38)a is the *wh*-element of a free relative. The same applies to the following

examples, all of them involving plural count nouns as heads of the respective comparative constructions. These sentences must be interpreted in the sense of (32)/(33):

(39) a. Hij heeft meer bomen omgehakt dan waar zijn voorman
he has more trees felled than what his foreman
een kruisje op had gezet.
a cross on had put

b. Hij heeft meer bomen omgehakt dan zijn voorman een kruisje op had gezet.

(40) a. Hij heeft meer artikelen doorgewerkt dan waar zijn
he has more papers examined than what his
collega aandacht aan had willen besteden.
colleague attention to had wanted to-pay

b. *Hij heeft meer artikelen doorgewerkt dan zijn collega aandacht aan had willen besteden.

(41) a. Zij heeft meer platen gecontroleerd dan waar haar directeur
she has more records checked than what her director
een notitie over had achtergelaten.
a note about had left

b. *Zij heeft meer platen gecontroleerd dan haar directeur een notitie over had achtergelaten.

(42) a. Zij heeft meer brieven naar de post gebracht dan waar
she has more letters to the postoffice brought than what
een Amerikaans adres op stond.
an American address on was

b. *Zij heeft meer brieven naar de post gebracht dan een Amerikaans adres op stond.

The above-mentioned constellation of facts is an unexpected one and also an as yet unexplained one. While discussing (4)a we had come to the conclusion that it might have one semantic interpretation but two syntactic structures. The unitary semantic interpretation is predictable and so it need not concern us. These results follow from a theory that allows both for sentential *dan*-complements and for phrasal ones. This theory must also include an analysis of Comparative Deletion in terms of *Wh*-Movement and a *Wh*-Deletion rule, i.e. (5). The nonexistence of Comparative Deletion structures like (4)b can be accounted for on the basis of the idiosyncracies of rule (5). This syntactic description is complemented by two semantic interpretation rules, one for sentential comparatives, i.e. (31), and one for phrasal comparatives, i.e. (33). These rules yield two readings for sentence (4)a that happen to be equivalent.

On the basis of the same rules, one would expect two distinct readings for the (a)-sentences of (38)-(42). That is not the case. The semantic interpretation of these sentences is such that they must contain free relatives and not sentential *dan*-complements. This leaves unexplained both the impossibility of a Comparative *Wh*-Movement analysis for the (a)-sentences of (38)-(42) and the ungrammatically of the (b)-sentences of the same series. The answer to the latter problem will be included in the answer to the former, no doubt.

It seems reasonable to give up an assumption we have tried to uphold throughout this section, i.e. the assumption that sentence (4)a is overt evidence for Comparative *Wh*-Movement.[9] This means that we also have to give up rule (5) and go back to the less specified rule (3), which I repeat here for convenience:

(3)	X	-	*dan*	-	[+WH]	-	Y	
	1		2		3		4	⇒
	1		2		e		4	

Let us assume — pending a solution for the problem of the ungrammatically of the (b)-sentences of (4) and (38)-(42) — that this rule, in cooperation with *Wh*-Movement, can account for the phenomenon of Comparative Deletion in Dutch. Yet, as things stand now, this rule will misgenerate, because it can freely apply to the relative pronouns of free relatives in phrasal *dan*-complements. Unless further constrained, rule (3) will derive sentence (26) from sentence (20) — which is undesirable for semantic reasons — and the (b)-sentences in (4) and (38)-(42) from the respective (a)-sentences — which is undesirable for syntactic reasons. The solution for this problem seems to me to be straightforward. There is an obvious syntactic difference between (20), (4)a, and (38)a-(42)a on the one hand and (26), (4)b, and (38)b-(42)b on the other hand, as is expressed in (43) and (44), respectively:

(43) .... $[_{PP}$ *dan* $[_{NP}$ Δ $[_{S'}[_{COMP}[_{NP}$ ... [+WH] ...]] ...]]] ....

(44) .... $[_{PP}$ *dan* $[_{S'}[_{COMP}[_{NP}$ ... [+WH] ...]] ...]] ....

In the sentences corresponding to (43), the *wh*-element is separated from *dan* by two cyclic nodes, i.e. NP and S'. In the sentences corresponding to (44), *dan* and the *wh*-element in COMP are separated by only one cyclic node, i.e. S'. Thus, we can evoke the Subjacency Condition (see Chomsky (1973)) in order to account for the nonapplicability of rule (3) to

9. Note that we do not have to find any *wh*-element introducing a comparative clause. Phonological absence of *wh*-elements does not suffice as an argument against the *wh*-analysis of Comparative Deletion.

structures like (43). I will briefly return to this subject in the concluding section, section 5.

From now on we will assume that comparative *wh*-elements never appear. Thus, they may be syntactically present, while being phonologically absent. Section 3 will show how we can account for the ungrammaticality of (4)b and (38)b-(42)b under the *wh*-analysis for Comparative Deletion. Section 4 will provide a new argument in favor of Comparative *Wh*-Movement, now that the argument based upon (4)a has been rejected.

3. On the nature of the *Wh*-element deleted

Until now I have tacitly accepted an assumption that underlies the analysis of sentences like (4)a in Van Riemsdijk (1977), i.e. the assumption that comparative *wh*-elements that do not delete will be the same as relative pronouns. In fact, this is not what one would expect given the semantic differences between comparative and relative structures. My doubts with regard to the above-mentioned assumption are confirmed by certain syntactic facts concerning sentential *dan*-complements.

In Bennis (1977) it has been pointed out that the occurrence of the quantitative morpheme *er* in sentential *dan*-complements yields an argument in favor of an underlying QP, as is assumed by Bresnan (1973; 1976a; 1976b; and 1977). We will briefly review the properties of quantitative *er*, and then apply our knowledge to sentential comparatives.

According to the description of quantitative *er* by Blom (1977), this morpheme is an obligatory satellite of an indefinite quantified countable NP, provided that NP consists of a lexicalized QP and an empty N′. The requirement that N′ be empty is exemplified in (45). Quantitative *er* is glossed as 'there', because it is homophonous with the pro-PP *er* 'there' and with the subject filler *er* 'there' of *There* Insertion:

(45) a. Hij heeft er drie.
he has there three (for instance: houses)
b. *Hij heeft er drie huizen.
he has there three houses

Sentence (45)b has a grammatical reading if *er* is interpreted as the locative pro-PP *er* 'there'. The empty N′ anaphorically refers to another N′ given in the context.

The following two sentences show that the NP that is bound by *er* must refer to a countable quantity:

(46) a. Jouw vader heeft veel geld, maar Sikko heeft (*er)
your father has much money but Sikko has (*there)
ook veel.
also much

b. Jouw vader heeft veel boeken, maar Sikko heeft *(er)
your father has many books but Sikko has *(there)
ook veel.
also many

Furthermore, if we follow Blom (1977) and assume that APs are generated under N′, the difference between (45)a and (47) can be accounted for:[10]

(47) Hij heeft (*er) drie rooie
He has (*there) three red ones

Bennis (1977) has shown that quantitative *er* in sentential *dan*-complements exhibits the same properties as it does elsewhere. For instance, *er* may not be associated with mass nouns. Compare the following sentences:

(48) a. Ik heb meer boeken geschreven dan jij er gelezen hebt.
I have more books written than you there read have

b. Ik heb in één jaar meer geld gemaakt dan jij
I have in one year more money made than you
(*er) in tien jaar zou kunnen verdienen.
(*there) in ten years would be-able-to earn

Following Bennis, we may conclude that quantitative *er* in sentences like (48)a (and also (17)b and (26′) above) can be accounted for if we assume that underlyingly the pertinent *dan*-complements contain compared elements that consist of a QP and an empty N′, the N′ being anaphorically related to the nominal head of the antecedent of the comparative construction. Bennis suggests Subdeletion as the rule that is responsible for the deletion of the QP; and in Bennis (1978) it is concluded that in fact Comparative Deletion equals Subdeletion. This means that rule (3), i.e. Comparative *Wh*-Deletion, must apply to an intermediate structure like (50)a, and not to (50)b, in order to derive sentence (49):

(49) Hij heeft meer platen gekocht dan ik er heb gekocht.
he has more records bought than I there have bought

10. For these and more facts concerning *er*, see Bech (1952), Blom (1977), and Bennis (1977; 1978).

(50) a. [$_{S'}$ hij heeft [$_{N''}$[$_{Q''}$ meer] [$_{N'}$ platen]] gekocht [$_{P''}$ dan [$_{S'}$[$_{COMP}$[$_{Q''_i}$ hoevele]] ik [$_{CL'}$ er][$_{N''}$[$_{Q''_i}$ e][$_{N'}$ Δ]] heb gekocht]]]
(*hoevele*: 'how many')

b. [$_{S'}$ hij heeft [$_{N''}$[$_{Q''}$ meer][$_{N'}$ platen]] gekocht [$_{P''}$ dan [$_{S'}$ [$_{COMP}$ [$_{N''_i}$ [$_{Q''}$ hoevele][$_{N'}$ Δ]]] ik [$_{CL'}$ er] [$_{N''_i}$ e] heb gekocht]]]

I am assuming with Bennis (1978) that *er* is base-generated in the clitic position CL', which occurs between subject NP and VP, and that it has not been moved from N' to CL'. For arguments I refer to Bennis (1978).

For ease of exposition, though, I will assume that (50)b is the intermediate structure in the derivation of sentence (49). The sole point important for this study is that the NP deleted in (49) is a quantified NP; and it seems reasonable to assume that every comparative of inequality involves some sort of quantification. Bresnan has stressed this point in several studies (Bresnan 1973; 1976a; 1976b; 1977). From this point of view, it would be an odd exception to the usual requirements for quantitative *er*, if (49) were derived from an intermediate structure like (51) containing a relative pronoun. Relative pronouns and anaphoric pronouns in general cannot be linked with quantitative *er*. Compare (51) with (52):

(51) [$_{S'}$ hij heeft [$_{N''}$[$_{Q''}$ meer][$_{N'}$ platen]] gekocht [$_{P''}$ dan [$_{S'}$ [$_{COMP}$ [$_{N''_i}$ die]] ik [$_{CL'}$ er] [$_{N''_i}$ e] heb gekocht]]]
(*die*: 'which')

(52) a. Ik ken geen van de boeken die Jan (*er) heeft.
I know none of the books which John (*there) has

b. Ik heb ze (*er) niet.
I have them (*there) not

This confirms the findings of the preceding section, where it was established that relative pronouns adjacent to *dan* signal the presence of free relatives and not of sentential *dan*-complements.

The above conclusion has some implications for the syntactic analysis of sentences like (4)a and (38)a-(42)a. As I stated in section 2, R-pronouns are the sole NPs that may leave a PP. Other NPs may not. Quantified NPs are no exception to this statement, whether their N' is empty or not. Consider the following sentences:

(53) a. *Hoeveel geld had jij dan op —— gerekend?
how much money had you then on —— counted

b. Op hoeveel geld had jij dan gerekend?

(54) a. *Hoeveel had jij dan op —— gerekend?
how much had you then on —— counted

b. Op hoeveel had jij dan gerekend?

Evidently, there are no R-variants for the QPs of quantified NPs. Thus, there is no way for them to be extracted from PPs.

What does this imply for a sentence like (4)a? This sentence is repeated here for convenience:

(4) a. Jan heeft meer geld verdiend dan waar zijn vrouw op gerekend had.

Waar cannot be a quantified NP, for obvious reasons: there are no R-variants for such NPs. Therefore, *waar* is a relative pronoun. As we have seen above, relative pronouns may not serve as substitutes for comparative *wh*-elements, since that would complicate the description of quantitative *er*. Thus the (a)-sentences in (4) and (38)-(42) contain free relatives.

It remains to be seen why Comparative Deletion may not apply to the object of a preposition, that is, why the (b)-sentences of (4) and (38)-(42) are ungrammatical. Sentence (4)b is repeated here for convenience:

(4) b. *Jan heeft meer geld verdiend dan zijn vrouw op gerekend had.

The general underlying structure of the (b)-sentences under consideration will be (55)a. These sentences can be derived by extraction of N''_2 from its PP and deletion of N''_2 in COMP, as has been depicted in (55)b and (55)c, respectively:

(55) a. $[_{S'}\ W_1\ [_{N''_1}[_{Q''}\ \textit{meer}][_{N'}\ x]]\ W_2\ [_{P''}\ \textit{dan}\ [_{S'}\ \text{COMP}\ W_3\ [_{P''}\ P\ [_{N''_2}[_{Q''}\ \textit{hoeveel}]\ [_{N'}\ x]]]\ W_4]]]$

b. $[_{S'}\ W_1\ [_{N''_1}[_{Q''}\ \textit{meer}][_{N'}\ x]]\ W_2\ [_{P''}\ \textit{dan}\ [_{S'}\ [_{\text{COMP}}[_{N''_2}[_{Q''}\ \textit{hoeveel}]\ [_{N'}\ x]]]\ W_3\ [_{P''}\ P\ [_{N''_2}\ e]]\ W_4]]]$

c. $[_{S'}\ W_1\ [_{N''_1}[_{Q''}\ \textit{meer}][_{N'}\ x]]\ W_2\ [_{P''}\ \textit{dan}\ [_{S'}\ [_{\text{COMP}}[_{N''_2}\ e]]\ W_3\ [_{P''}\ P\ [_{N''_2}\ e]]\ W_4]]]$

The deletion relating (55)b and (55)c is allowed because of the recoverability of the material deleted under N''_2. However, the movement of N''_2 relating (55)a to (55)b is prohibited, because only R-pronouns may be moved out of a PP.[11] Therefore, the (b)-sentences of (4) and (38)-(42) are ungrammatical.

Now suppose that Comparative *Wh*-Movement were to pied-pipe the preposition of which N''_2 is the object, along with N''_2 itself. The subsequent (obligatory) deletion of the full PP would irrecoverably efface

11. I refer again to Van Riemsdijk (1976a; 1978). In this article, I have disregarded the fact that NPs may also move out of their PP if the pertinent PP is postpositional and the postposition is moved into particle position. Objects of such postpositions seem to me to be comparativizable.

the pertinent preposition. Thus, there is no grammatical surface structure corresponding to underlying structures like (55)a.

In this way, we have disentangled the incongruous mass of facts of section 2. Sentences like (4)a contain free relatives. Sentences like (4)b are predictable cases of ungrammatical *Wh*-Movement. The pair of examples in (4) has been presented as overt evidence in favor of Comparative *Wh*-Movement by Van Riemsdijk (1977). In this article, I have come to the conclusion that that is wrong. Nevertheless, in the following section I will show that there is independent evidence for *Wh*-Movement in sentential *dan*-complements.

4. On the absence of *Wh*-elements: *Dan* vs. *dan dat*

In the second section we established that *dan* 'than' must be a preposition, whether it introduces a phrasal or a sentential *dan*-complement. This is confirmed by the fact that in spoken Dutch *dan dat* 'than that' is an optional variant of *dan*, when introducing a sentential *dan*-complement. This does not tell us, though, by what rules the standard dialect of Dutch I am describing here chooses *dan* and not *dan dat*. But the answer seems obvious: *dan* chooses a zero complementizer, either by deleting *dat* (compare (56)) or by requiring the complementizer to be ϕ, a special option in the lexicon.

(56)	X	-	*dan*	-	*dat*	-	Y	
	1		2		3		4	⇒
	1		2		e		4	

We need such rules anyhow, because there are subordinating conjunctions that consist of a preposition plus an obligatory complementizer *dat*, others that consist of a preposition plus an optional *dat*, and still others that seem to require the absence of *dat*. Samples of the respective types of subordinating conjunctions are given in (57) and (58). It is clear that the rules suggested above can take care of the two latter types:

(57)	*omdat* 'because'	= *om* 'because of'	+ *dat* 'that'
	doordat 'because'	= *door* 'by'	+ *dat*
	zonder dat 'without'	= *zonder* 'without'	+ *dat*
	ondanks dat 'although'	= *ondanks* 'despite'	+ *dat*
	nadat 'after'	= *na* 'after'	+ *dat*
(58)a.	*voor (dat)* 'before'	= *voor* 'before'	+ *(dat)*
	tot (dat) 'till'	= *tot* 'till'	+ *(dat)*
b.	*sinds (ʔdat)* 'since'	= *sinds* 'since'	+ *(ʔdat)*

Thus we might attribute *dan* and the variable *dan (dat)* of spoken Dutch

to the second set of subordinating conjunctions, i.e. (58). However, there are other observations concerning *dan* that make it doubtful whether the description suggested is the right one.

There is a set of comparatives that require the use of *dan dat, dat* being obligatory, instead of the usual *dan*. I do not mean sentences like (59)a. There the sequence *dan dat* is a coincidence brought about by Comparative Ellipsis. Compare (59)b:

(59) a. Hij zei vaker dat het anders moest
he said more frequently that it should be done differently
dan dat hij niet meer mee wou doen.
than that he not anymore wanted to cooperate

b. Hij zei vaker dat het anders moest
he said more frequently that it should be done differently
dan hij zei dat hij niet meer mee wou doen.
than he said that he not anymore wanted to cooperate

By a similar coincidence, we could have found *dan of* 'than whether' or *dan wh-phrase*, depending upon the main verb used.

Now consider the following set of sentences:

(60) a. Jan zal eerder zeggen, dat ie verhinderd is, dan dat ie
John will rather say that he is unable to come than that he
je niet mag.
you not likes

b. Hij zal eerder vragen, of ie eens langs mag komen,
he will rather ask whether he once may drop by
dan of ie geld kan lenen.
than whether he money can borrow

c. Hij zal eerder vragen, waar het gebeurd is, dan hoeveel
he will rather ask where it happened than how many
gewonden er waren.
wounded there were

The comparative word *eerder* 'rather', used in (60), should be carefully distinguished from the word *eerder* 'earlier, sooner', used in (61). If we undo Comparative Ellipsis in (61)a, we get (61)b:

(61) a. Zij had het eerder begrepen dan Jan.
she had it sooner understood than John

b. Zij had het eerder begrepen *dan* Jan het
she had it sooner understood than John it
begrepen had.
understood had

Here the subordinating conjunction is *dan*. That is not the case if we undo

Comparative Ellipsis in (60). Compare (62) with (60):

(62) a. Hij zal eerder zeggen, dat ie verhinderd is, *dan dat*
he will rather say that he is unable to come than that
ie zal zeggen, dat ie je niet mag.
he will say that he you not likes

b. Hij zal eerder vragen, of ie eens langs mag komen,
he will rather ask whether he once may drop by
dan dat ie zal vragen, of ie geld kan lenen.
than that he will ask whether he money can borrow

c. Hij zal eerder vragen, waar het gebeurd is, *dan dat* ie
he will rather ask where it happened than that he
zal vragen, hoeveel gewonden er waren.
will ask, how many wounded there were

In the case of (62), the use of *dan dat* is obligatory. The meaning of *eerder* would change from 'rather' to 'earlier, sooner', if we were to leave out *dat*. This use of *dan dat* is not an accident. Compare the following pairs of elliptical and nonelliptical comparatives:

(63) a. Hij is eerder lang dan sterk.
he is rather tall than strong
'He is tall rather than strong.'

b. Hij is eerder lang *dan dat* ie sterk is.
he is rather tall than that he strong is

(64) a. Hij zal eerder in West-Berlijn wonen dan in de
he will rather in West Berlin live than in the
Bondsrepubliek.
FRG

b. Hij zal eerder in West-Berlijn wonen, *dan dat* ie in de
he will rather in West Berlin live than that he in the
Bondsrepubliek zal wonen.
FRG will live

(65) a. Hij zal er eerder een boek voor kopen dan een plaat.
he will there rather a book with buy than a record

b. Hij zal er een boek voor kopen, *dan dat* ie er
he will there a book with buy than that he there
een plaat voor zal kopen.
a record with will buy

Eerder 'rather' is not the sole expression that has this peculiar restriction on its complement. Three other expressions are know to me that exhibit the same property: *liever, meer*, and *beter*. First, *liever*, which means 'rather, sooner' and implies an active preference on the part of the

subject.[12] Consider the following sentences:

(66) a. Ik koop liever een bundel van Celan dan een roman van
I'd rather buy a collection by Celan than a novel by
Habakuk II de Balker.
Habakuk II de Balker

b. Ik koop liever een bundel van Celan, *dan dat* ik een
I'd rather buy a collection by Celan than that I a
roman van Habakuk II de Balker koop.
novel by Habakuk II de Balker would buy

(67) a. Ik ga liever naar Praag dan naar Oost-Berlijn.
I'd rather go to Prague than to East Berlin

b. Ik ga liever naar Praag, *dan dat* ik naar
I'd rather go to Prague than that I to
Oost-Berlijn ga.
East Berlin would go

Second, *meer*, which means 'more'. It is a sentence adverbial and has shades of the meaning of *eerder*. Consider the following sentences:

(68) a. Hij is meer een anglofiel dan een gallofoob.
he is more of an Anglophile than of a Gallophobe

b. Hij is meer een anglofiel, *dan dat* ie een gallofoob is.
he is more an Anglophile than that he a Gallophobe is

(69) a. Hij zit meer in de handel dan in het geldwezen.
he is more into commerce than into finance

b. Hij zit meer in de handel, *dan dat* ie in
he is more into commerce than that he into
het geldwezen zit.
finance is

Finally, *beter*, which means 'better'. It is a sentence adverbial and signifies objective preference. It may not be interchanged with *liever*. Consider the following examples:

(70) a. Je kunt er beter een goede handbibliotheek voor kopen
you can there better a good library with buy
dan een tweede huis in Friesland.
than a second home in Friesland

b. Je kunt er beter een goede handbibliotheek voor kopen,
you can there better a good library with buy
dan dat je er een tweede huis in Friesland voor koopt.
than that you there a second home in Friesland with buy

12. The expression *liever/lever* is too archaic to serve as a suitable translation.

(71) a. Je kunt dat stuk beter nu schrijven dan morgen.
you can that paper better now write than tomorrow
b. Je kunt dat stuk beter nu schrijven, *dan dat* je het
you can that paper better now write than that you it
morgen schrijft.
tomorrow write

All of the above *dan-dat*-complements may be reduced by Comparative Ellipsis. There are also complements that may not be reduced. Compare the following examples:

(72) a. Het was eerder een vermoeden, *dan dat* iemand het
it was rather a presumption than that anybody it
werkelijk verwacht had.
really expected had
b. Ik begin liever nu direct met de vergadering, *dan*
I'd rather start now immediately with the meeting than
dat we nog langer op hen blijven wachten.
that we any longer for them keep waiting
c. Het is meer een klein verschil van mening, *dan dat* wij het
it is more a small difference in opinion than that we
werkelijk met elkaar oneens zijn.
really disagree
d. Je kunt beter een eigen psychologisch begeleider hebben,
you can better an own psychologist have
dan dat je aangesloten bent bij de ABC-dienst.
than that you affiliated are with the ABC-service

Interestingly enough, another construction, which is — strictly speaking — outside the realm of comparatives, requires *dan dat* as well. Consider the following example:

(73) Hij heeft dat te vaak gezegd, *dan dat* ik hem nog geloof.
he has that too often said than that I him still believe

Instead of *dan dat*, the complementizer *om* 'for' may be used. The subject of the infinitival clause will be an Equi-NP:

(74) Hij is te ziek om nog uit zijn bed te kunnen stappen.
he is too ill for still out of his bed to be-able to-step

Reviewing the above data, it is clear that rule (56) does not suffice.[13]

13. It will not come as a surprise that in German a similar distinction can be found: *als* 'than' vs. *als daß* 'than that'. Compare the following examples:

(i) Er ist größer *als* sein Vater je gewesen ist.
he is taller than his father ever been has

But before giving it up, we have to know whether this rule can be salvaged by adding other mechanisms to our grammar. Those who would like to defend rule (56) might point out, for instance, that there is a semantic difference between "normal" comparatives and these *dan-dat*-comparatives. *Eerder, meer*, and *beter* are sentence adverbials and so have a full clause in their scope. Thus, they may compare two clauses. The same applies to *liever*. Therefore, sentences corresponding to the general structure (75) can be interpreted roughly as indicated in (76):

(75) $[_{S'}\ W_1\ \left\{\begin{matrix}eerder\\liever\\etc.\end{matrix}\right\}\ W_2\ [_{PP}\ dan\ [_{S'_2}\ dat\ W_3]]]$

(76) $\left\{\begin{matrix}eerder\\liever\\etc.\end{matrix}\right\}\ [_{S'_1}\ W_1\ W_2]\ dan\ S'_2$

Sentences like (75) bear some resemblance to sentences containing phrasal *dan*-complements. More specifically, we may interpret S'_2 as the compared element, comparable to NP_2 in (32). And it seems reasonable not to delete anything inside a phrasal *dan*-complement by means of rules that have been designed for sentential *dan*-complements. Therefore, rule (56) may not be applied to structures like (75).

This does not follow. I agree with the first step in the argument, to the efect that S'_2 in (75) is the element compared. As for he second step in the argument, I do not see how one can prevent rule (56) from applying to (75), unless one resorts to a semantic condition stating that rule (56) may not apply to the complementizer of a compared element. This condition would be ad hoc. Furthermore, it should not be forgotten that the rule of Comparative Ellipsis — which has also been designed for sentential *dan*-complements — applies to *dan-dat*-complements as well, as we have seen while considering (63)-(71). Therefore, we have to look for a suitable alternative for rule (56). This alternative must be such that it will apply to the complementizer of a sentential *dan*-complement but neither to the complementizer in a *dan-dat*-complement nor to the complementizer in the complement of the superlative construction (73).

The obvious difference between the sentential *dan*-complements and the comparative and superlative *dan-dat*-complements is that Com-

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(ii) Ich gehe eher früher weg *als daß* wir ein Taxi nehmen müssen.
I go rather earlier away than that we a taxi take must

(iii) Er ist zu dumm *als daß* wir ihm etwas zutrauen können.
he is too dumb than that we him something entrust can

parative Deletion has been applied to the former structures but not to the latter. This suggests that the use of the subordinative conjunction *dan* is related to Comparative Deletion and the use of *dan dat* to the absence of that rule.

How would a theory like B″ deal with these facts? I can see two options, both of them unlikely ones. Under the first option, *dat* would be deleted by the rule of Comparative Deletion. Its formalization would run as follows:

(77) $W_1 - [_{X''}[_{X''} - er\ veel] + W_2] - [_{P''}\ dan - [_{S'}[_{COMP}\ dat] -$
1 2 3 4
1 2 3 e
$W_3 - [_{X''}\ X'' + W_4] - W_5]] - W_6$
5 6 7 8 ⇒
5 e 7 8

This rule would collapse Comparative Deletion and the deletion of the complementizer. Apart from the fact that rule (77) is ad hoc, there are also technical objections against it. First, the framework of Bresnan (1976b) does not allow this rule, because it has three target predicates. The maximal number allowed is two. Second, rule (77) may work for the dialect under consideration, but it will not work for the dialect of Dutch that uses a variable *dan (dat)* instead of *dan*. That particular dialect needs a separate, optional rule for the deletion of *dat*. Therefore, it is feasible to separate the processes subsumed under rule (77). This leads to the second option I have in mind for theory B″. Suppose the structural description of *Dat* Deletion is the same as shown in (77). Its structural change, on the other hand, will be: 1, 2, 3, e, 5, 6, 7, 8. Furthermore, there is a condition to the effect that 2 be equal to 6 — the same condition that is necessary for rule (77). Comparative Deletion will delete the compared element that is contained in the S′ adjacent to *dan*.

Both of the options are unlikely because of the clumsiness and ad hoc-ness of the rules involved. More importantly, both of them contradict a feasible hypothesis concerning specified deletions and substitutions. This hypothesis states that such rules must be local transformations.[14] This theory requires not only that the element to be deleted or substituted be adjacent to another constant that triggers the rule, but also that no additional constant be mentioned in that rule. The latter requirement is violated under both of the options under considerations. This means that — as far as I can see — theory B″ cannot offer a

14. See Den Besten (1975; 1976; 1977) and Emonds (1976). Similar ideas concerning filters have been expressed in Chomsky and Lasnik (1977).

principled solution for the problem of the deletion of the complementizer in sentential comparatives. Therefore, either we accept the local theory of specified deletions and reject theory B", or we accept theory B" and reject the local theory of specified deletions. There is no reason for embarras du choix. If the alternative to theory B", i.e. C, can handle the problem of *dat* being deleted in sentential comparatives without violating the local theory of specified deletions, we can be sure to have found a principled description for Dutch comparatives.

C, the theory outlined in Chomsky (1977), requires that Comparative Deletion be described in terms of *Wh*-Movement and a local deletion rule effacing the *wh*-element in COMP. We will assume that the latter rule is the same as rule (3), which I again repeat for convenience:

(3)	X	-	*dan*	- [+ WH] -	Y	
	1		2	3	4	⇒
	1		2	e	4	

As I said in the introduction, a *wh*-phrase in COMP may trigger syntactic changes in its environment. One of these changes may be the deletion of the lexical complementizer. And this, I think, happens in Dutch comparative clauses. The compared *wh*-element triggers the deletion of the lexical complementizer via rule (78), before being deleted itself by rule (3). *Wh*-Movement does not apply to *eerder*-comparatives, because nothing deletes, i.e. moves, in *dan-dat*-complements. Consequently, rule (3) cannot apply to these structures, nor can rule (78):

(78)	X	- [+ WH] -	*dat*	-	Y	
	1	2	3		4	⇒
	1	2	e		4	

By the same token, it is predicted that *dat* will not delete in structures like (73), either.

It follows by the logic of my approach that Subdeletion is another case of *Wh*-Movement. Compare the following two sentences:

(79) a. Deze tafel is langer dan (?dat) die tafel breed is.
this table is longer than (?that) that table wide is

b. Deze tafel is twee meter langer dan (*dat) die tafel breed is
this table is two meters longer than (*that) that table wide is

There is some uncertainty as to whether the use of *dat* in (79)a is corect. This may be due to the fact that (79)a is analyzed as a hidden *eerder*-comparative, something like (80):

(80) ?Deze tafel is meer lang dan dat die tafel breed is.
this table is more long than that that table wide is

Whatever the interpretation of the facts may be, note that *dat* in (79)a is optional — if it is acceptable at all. And — what is more important — the use of *dat* is excluded if a reading is enforced in which the length and width of the respective tables are being compared, as is done in (79)b. Here the QP of the AP *breed* has been deleted and *dat* deletes as well. We may safely assume that the pertinent QP has been moved by *Wh*-Movement, deletes *dat* via rule (78), and is finally deleted itself by rule (3).

We may conclude that theory C is superior to theorie B″ in that C does not need a theory of specified deletions that is less restricted than the local theory we are assuming here. Therefore, the advocates of B″ have to take one step back and reconsider B′. The latter theory can easily be reconciled with the local theory of specified deletions, since theory B′ allows for an analysis of Comparative Deletion in terms of *Wh*-Movement. The sole point left to debate is the issue of successive cyclicity versus unbounded rule application. In that respect it is important to note, I think, that the local theory of specified deletions and substitutions cannot contribute to a solution for the latter issue, because it can only be used as a means to detect the syntactic presence of a *wh*-element in its ultimate landing site. In Den Besten (1975; 1977) it has been argued that deletions — and specified deletions in particular — have to follow movement rules. It seems reasonable to assume, following Chomsky and Lasnik (1977), that this means that deletions follow syntax proper.

5. Conclusion

To summarize the description of Dutch comparatives that has been developed in the course of this article: *Dan* 'than' is a preposition. *Dan*-complements are either phrasal or sentential. In a phrasal *dan*-complement, the compared element is the object of *dan*. The compared element may be a free relative. In a sentential *dan*-complement, the compared element is contained in the clause that is the object of *dan*. In that case, the compared element will be identical in some sense of that word to the comparative phrase in the main clause. More specifically, the compared element will contain a QP parallel to the QP of the comparative phrase. This QP is supposed to be [+WH]. Furthermore, there are special cases of phrasal comparatives involving *eerder* 'rather', *liever* 'rather', *meer* 'more', and *beter* 'better' — all of which are sentence adverbials. These adverbs compare full sentences. *Wh*-Movement moves the compared element that is [+WH] to the complementizer adjacent to *dan*.

After *Wh*-Movement, the respective structures will contain the following sequences:

(81) a. $[_P$ *dan*$][_{COMP}$ *dat*$]$ (in *eerder*-comparatives)
b. $[_P$ *dan*$][_{COMP}[_{X''}$ +WH] *dat*$]$ (in sentential comparatives)
c. $[_P$ *dan*$][_{N''}$ $\Delta][_{COMP}[_{X''}$ +WH] *dat*$]$ (in phrasal comparatives containing free relatives)

To these sequences are applied the following specified deletion rules:

(82) Dat *deletion* (= (78))

X	- [+WH] -	*dat*	- Y	
1	2	3	4	⇒
1	2	e	4	

(83) *Comparative* Wh-*deletion* (= (3))

X	- *dan*	- [+WH] -	Y	
1	2	3	4	⇒
1	2	e	4	

Application of these rules to the respective sequences in (81) yields the following output:

(84) a. $[_P$ *dan*$][_{COMP}$ *dat*$]$, i.e. *dan dat*
b. $[_P$ *dan*$][_{COMP}[_{X''}$ e] e] , i.e. *dan*
c. $[_P$ *dan*$][_{N''}$ $\Delta][_{COMP}[_{X''}$ +WH] e] , i.e. *dan wh-phrase*

Thus, there will not be any surface overlap among the three constructions under consideration. Note that (82) is a very general rule applying with equal force to comparative and relative clauses. Standard Dutch does not allow a COMP consisting of a relative *wh*-phrase followed by a lexical complementizer. But in the spoken language one may hear this complementizer once in a while. Compare example (12)ai and my remarks on variable *dan (dat)* in the spoken language.

In terms of theories, this description conforms to theory C, the theory suggested by Chomsky (1977), and to the local theory of specified deletions, as presented in Den Besten (1975; 1976; 1977) and Emonds (1976).[15] Both of these theories have been extended in the course of this

15. This theory, in connection with the theory set forth in Chomsky (1977), can be applied elsewhere too.

First, the optional absence of the lexical complementizer in English deletion relatives may be attributed to the syntactic presence of the *wh*-element that subsequently has been deleted itself. Compare (i) and (ii):

(i) a. the fact that you do not accept theory B''
b. the facts (that) you do not accept
(ii) the facts which (*that) you do not accept

article. It has been established that Bresnan (1973; 1976a; 1976b; 1977) is right in positing an underlying QP as being part of the compared phrase that must be deleted. This result has been taken over from Bennis (1977;

For an alternative account, see Chomsky and Lasnik (1977).

Furthermore, we may expect to find specified local substitutions. It is predicted that a zero *wh*-element may leave a trace of its presence by changing the phonological appearance of the lexical complementizer. Examples of this process can be found in English and Afrikaans.

Chomsky (1977) and Chomsky and Lasnik (1977) have contended that sentences like those in (iii) are overt evidence for *Wh*-Movement in comparatives:

(iii) a. John is taller *than what* Mary is.
b. John is taller *than what* Mary told us that Bill is.

It is improbable that *what* is a *wh*-element. Bresnan (1976a) has pointed out that this *what* is invariant and covers a variety of functions. Compare the following sentences, taken from Bresnan (1976a):

(iv) a. I hope you can walk quicker *than what* you can eat.
2b. He convinced me in more ways *than what* he did her (*in).
c. He writes more plays *than what* Bill does.

Thus, this dialectal *what* is a complementizer. Its lexical shape may be attributed to the syntactic presence of a *wh*-element that has been deleted. An underlying complementizer *that* is changed to *what* by rule (v):

(v)	X	-	[+WH]	-	*that*	-	Y	
	1		2		3		4	⇒
	1		2		*what*		4	

A similar rule is operative in Afrikaans comparatives. Consider the following examples:

(vi) a. Jan is groter *as* *wat* Peter is.
John is taller than what Peter is
b. Jan het meer boeke gekoop *as* *wat* Piet gekoop het.
John has more books bought than what Pete bought has
(vii) Jan koop meer boeke *as* *wat* Piet plate koop.
John buys more books than what Pete records buys

The use of *wat* in comparatives must be related to the use of *wat* in Afrikaans relatives:

(viii) die digteres *wat* hierdie boek geskrywe het
the poetess who this book written has

Usually, *wat* is analyzed as a relative pronoun. However, I will show elsewhere that *wat* derives from *dat/lat* 'that' via a rule similar to (v). This conclusion is based upon the fact that *wat* shows up wherever we may assume deletion of a postulated *wh*-element: in relatives, in comparatives and Subdeletion comparatives, in NP clefts and PP clefts, and in temporal relatives. This conclusion is confirmed by the observation that *wat* exhibits irregular behavior, if it were a pronoun in relative clauses. (I thank Hans du Plessis for having drawn my attention to Afrikaans comparatives.)

1978), and the consequences for comparison into PPs, one of the subjects of Van Riemsdijk (1977), have been explored. In this way, we have further specified theory C. It has also been established that considerations concerning specified deletion rules may yield an independent argument for the *wh*-analysis of Comparative Deletion. So much for theory C.

As for the local theory of specified deletions, the sequences in (84) could not have been derived from those in (81) without the assumption that the Subjacency Condition (see Chomsky (1973)) does in fact apply to the constant mentioned in a specified deletion rule. Therefore, I am assuming that a constant is involved in, or partakes in, a rule, if it is a mover, a landing site, a delendum, or the trigger for a deletion. Thus, both *dan* and [+WH] are partakers in rule (83), and rule (83) will not apply to (81)c, since in that structure *dan* and $[_{X''}$ +WH] are separated by two cyclic nodes.

Remarks concerning chapter 2

R1. *Relationship to the preceding chapter*

This article was written after, but published many years before, the preceding chapter came out. This explains their ordering in this book.

Note that chapters 1. and 2. deal with partly different phenomena in the area of COMP syntax. However, in a sense this chapter is a sequel to the preceding one in that the theory of lexical deletive rules (referred to here as "specified deletions") is expanded by the addition of (a variant of) the Subjacency Condition. One may wonder, however, whether it is wise to subsume *Wh*-deletion under the class of lexical deletive rules. If we do not want to do that we take away the evidence for subjacency restrictions upon lexical deletive rules because the evidence is based upon certain aspects of *Wh*-deletion and I do not know of any lexical deletive rule which provides us with similar data.

R2. *'Wat' in Afrikaans*

The analysis for *wat* in Afrikaans comparatives suggested in note 15 is worked out in detail in Den Besten (1978) and (1981). In these papers it is shown that *wat* may be a *wh*-variant of the complementizer *dat/lat* 'that' which shows up if the *wh*-element is deleted.

First of all, Afrikaans makes use of R-pronouns just like Dutch. The R-pronouns can be used irrespective of whether the pertinent preposition is stranded or not. Again, there is no difference here with the syntax of Dutch. Two examples of R-pronouns in interrogatives:

(i) a. *Waaroor* het hulle gesels?
Where-about have they talked?
b. *Waar* het hulle *oor* gesels?
Where have they about talked?
'What did they talk about?'

In relative clauses R-pronouns are possible as well, however only if the preposition is not stranded. If the preposition is stranded, *wat* shows up:

(ii) a. Eksamens is goed *waarvoor* ek bang is
Exams is stuff which-of I afraid am
b. Eksamens is goed *wat* ek bang *voor* is
Exams is stuff that I afraid of am

Secondly, in temporal relatives there are three options: either the Wh-word *toe* 'when' is used or the complementizer *dat* 'that' or *wat*:

(iii) die eerste keer *toe /dat /wat* hy hier was
the first time when/that/what he here was

(For more details, see Den Besten (1981).)

Finally, *wat* is used in NP clefts, which is hardly surprising, but also in PP clefts, as a variant of *dat*:

(iv) a. Dis Jan *wat* ons gesien het
It's John that we seen have
b. Dis van bangigheid *wat /dat* hy so bewe
It's out-of-fear what/that he so trembles

Chapter 3

Decidability in the Syntax of Verbs of (Not Necessarily) West Germanic Languages*

0. Introductory remarks

This paper concerns decidability in the syntax of verbs. The problem I want to address is of utmost importance for the study of the Continental West Germanic languages (dialects included) as well as for Afrikaans, whose status as a Germanic language is somewhat doubtful. My claim will be that there are not two, but in fact three rules which can affect the position of verbs and that in the case of specific examples it can be rather difficult to decide which rule is involved. I want to combine this claim with a couple of general questions that should interest students of West Germanic (and related languages such as Afrikaans). My paper will not be overtly technical, although I will have at least one theoretical remark to make, i.e. that I do not believe that COMP can ever be CONFL, or more precisely INFL. My argument will be based upon descriptions of a couple of Continental West Germanic languages. At the end of my paper I will show that new problems may arise if one wants to analyze Afrikaans, which is either African West Germanic or Afro-Dutch (i.e. a Creole language) — depending upon one's analysis.

1. Observational decidability — and beyond

Consider the following example:

(1) (Hij heeft beweerd, dat hij *had* dat boek willen lezen)
He has claimed that he had that book want-to read

*This is a somewhat revised version of a talk given for the Workshop on V-Movement at the University of Groningen, February 28, 1986. A slightly shorter version with a partly different orientation, called 'Drie regels voor V' (Three rules for V) has been presented at the 'Lezingendag over het werkwoord' (a one-day colloquium on verbs) at the University of Amsterdam, June 4, 1985.

This example is not a sentence from any West Germanic dialect in particular, although it is made up of Dutch words. Yet it is very realistic in that we can encounter such sentences in lots of dialects. What is exceptional about the subordinate clause in (1) is that the finite verb is not where one would expect it to be, i.e. at the end of the VP (either preceding or following *willen lezen*).

At first sight one might want to say that this looks like embedded V2 (or more precisely: V-to-COMP). However, I want to claim that there are in fact two other possibilities. This may also be V-to-INFL, or it is one of the many cases of what is called Verb Projection Raising. My cautious remark is based upon what we know from the study of West Germanic dialects and Yiddish. We know that there is a lot of variation in presentday West Germanic, and also a lot of variation across time. (Compare the differences between Middle Dutch and Modern Dutch; similarly for German; also compare the older phases of English.) If we also include Afrikaans in our considerations, the picture of possible variation seems to become even more chaotic. However, the analysis of the pertinent subpart(s) of Afrikaans grammar is still in an initial stage, and so I will not make use of Afrikaans for my argumentation.

The (at first sight) enormous variation in West Germanic calls for a principled treatment. Thus, besides the analytical problem of how to treat examples like (1), the following question should be addressed:

(2)a. Which decisions have to be taken at the level of Universal Grammar in order to permit the syntactic variation of West Germanic (Middle Dutch, Modern Dutch, Dutch dialects; same for German and the older phases of English; Afrikaans)?

My paper will give an overview of the answers that are already available in the literature, although some of them may not be widely known.

To this general question I would like to add three more specific questions having to do with linguistic change and L2-acquisition. Whereas question (2)a will be extensively discussed in the course of this paper, questions (2)b-d will be only briefly dealt with at the end of this paper. My main objective will be to show that (2)b, c and d can be rephrased on the basis of the answer to question (2)a. These more specific questions, then, will be the following:

(2)b. Howcome Dutch still is SOV, unlike English, Swedish and the other North Germanic languages, or Yiddish (which is a Continental West Germanic language after all)?

This question is based upon the observation that in the older stages of Dutch (and German) there has been a lot of freedom in the syntax of

verbs not unlike what was going on in the contemporaneous stages of English, Swedish, etc. — and yet Dutch has never made the step from underlying SOV to underlying SVO.

Follows the third question:

(2)c. Why is V1/2 such a difficult rule to learn under L2-acquisition, and what exactly is going wrong?

Related to this question is (2)d, which is a bit more complex:

(2)d.1 Why does Afrikaans, even in its lower lects (Fly-Taal excluded), have such a West Germanic appearance (in contrast to the Dutch Creole languages Negerhollands, Berbice Dutch, Skepi Dutch)?

d.2 Is it really true that all lects of Afrikaans share the same underlying (West Germanic) syntax with Dutch, at least in so far as general features are concerned?

The latter question is sparked off by the following observation. People usually do not seem to realize that there has been a Pidgin phase in South Africa. In all claims by the South African philologists it is stated that there has been no Pidgin phase in the development of Afrikaans out of Dutch dialects. That may be true for the whites. It is definitely not true for the Khoekoen (or: Hottentots) or for the slaves. We have clear examples of Pidgin Dutch from the 17th and 18th centuries. Therefore, we have to find out why this Pidgin Dutch, unlike what happened with Negerhollands, Berbice Dutch or Skepi Dutch did not lead to SVO. I will give sort of the beginning of an answer at the end of my talk (also compare Den Besten (1986) for data).

In the following sections we will be mainly concerned with possible answers to question (2)a. Section 2. will treat of V1/2 and Verb (Projection) Raising. Sections 3. and 4. will be concerned with V-to-INFL. Consequences for the analysis of sentence (1) will be discussed. Section 5., finally, will reconsider the questions (2)b-d.

2. Two well-known rules

2.1. Introductory remarks

Generally speaking, students of West Germanic will be aware of two rules affecting verbs: V1/2 (or: V-to-COMP) and Verb Raising, which should rather be called Verb Projecting Raising. After having inspected these rules is some detail in sections 2.2. and 2.3. respectively we will see what the ensuing data can tell us about the analysis of sentence (1).

2.2. V1/2 or V-to-COMP

Finite verbs in Germanic (English excluded) occupy a first or second position in main clauses. This is particularly clear in Continental West Germanic with its underlying SOV order (Yiddish excluded). Compare the following Dutch examples:

(3) a.1 *Ik geloof, dat ik *ga* die maar eens opzoeken
I think that I go that person just visit
2 *Ik geloof, dat die *ga* ik maar eens opzoeken
b. Ik geloof, dat ik die maar eens *ga* opzoeken
(4) a.1 Ik *ga* die maar eens opzoeken
2 Die *ga* ik maar eens opzoeken
b. *Ik die maar eens *ga* opzoeken

Let us assume the following rules for the base:

(5) a. $S'' \rightarrow (XP) \quad \bar{S}$
b. $\bar{S} \rightarrow ([+WH]) \quad [\pm \text{Tense}] \quad S$

For ease of reference we will call [± Tense] COMP. Now, if COMP is [+Tense] it can serve as a receptacle for the finite verb in main clauses. The correspondence between complementizers in subordinate clauses and finite verbs in main clauses can be shown by means of pairs of examples such as in (6):

(6) a. --, wat *of* zij gegeten *heeft*
--, what if/that she eaten has
b. Wat *heeft* zij gegeten *e* ?

Thus the general schema for V1/2 in Germanic languages can be rendered as follows:

(7) COMP $[_S$ NP $[_{VP} \ldots V_f \ldots]]$

This analysis seems to be generally accepted by now (cf. Haider and Prinzhorn (1986), Koopman (1984), Den Besten (1983), etc.).

Now we do know from several languages that V2 can also show up in subordinate clauses. Compare the following examples from English, Frisian, Yiddish and Icelandic respectively:

(8) a. I think that never *did* I see such a mess
b. Piet sei, dat hy *soe* hjerstmis it fjild yn *e*
Pete said that he would autumn the field(s) into *e*
c. Ix bin zix mexaie vos in nujork *voinen* mir *e*
I am REFL glad that in NY live we *e*

d. Jón segir að þessum hring *hafi* Ólafur *e* lofað Maríu
John says that this ring has Olaf *e* promissed to-Mary

[For Frisian see De Haan (1983), for Yiddish see Lowenstamm (1977), for Icelandic see Zaenen (1980).] Languages differ as to to what extent they permit embedded V2 of this type (i.e. following a lexical complementizer). Embedded V2 seems to be restricted to noninterrogative subordinate clauses. (I leave direct speech out of consideration.) A much favored context for embedded V2 is the complement of a verb of saying or a verb of thinking.

There are several ways of describing this combination of Topicalization and V2 in the immediate proximity of a lexical complementizer. I will assume without further discussion the description indicated under (9) in order to give a idea of a possible analysis (cf. Den Besten e.a. (1983)):

(9) ---, [$_{\bar{S}}$ COMP [$_{S''}$ XP [$_{\bar{S}}$ COMP [$_{S}$ ... V_f ...]]]]

In order to make this description work we have to assume that COMP may take S'' as a marked option — either by reanalysis of an underlying S or via the base. This way we get a new COMP which is available for V2. This does not imply that this is all we have to say about this phenomenon, but I will leave it at that. However, if we briefly return to example (1), we can see that it may well be that (1) is a simple case of embedded V2. If so, the embedded subject *hij* has been moved to the embedded XP position following COMP and *had* has been moved to a second COMP following *dat*, the 'real' COMP of the subordinate clause.

Yet, this cannot be the whole story, because another rule may be at stake: Verb Projecting Raising.

2.3. Verb (Projection) Raising

Verb Raising is a process by which adjacent verbs are reanalyzed as a verbal cluster. This reanalysis may also involve reordering of the pertinent verbs but that is not necessary. However, there is quite some variation among West Germanic dialects as to the actual scope of this rule (also from a diachronic point of view). The most general representation of this rule seems to be the following:

(10) .... V^n V^0 .... ; instruction: reanalyze
($2 \geqslant n \geqslant 0$)

(Compare Den Besten and Edmondson (1983) and Haegeman and Van Riemsdijk (1986).) What this rule schema says is that if a V^0 is preceded by a sentence-final V^n ($2 \geqslant n \geqslant 0$) they may be reanalyzed as a cluster. The

differences between the dialects stem from the values they choose for *n*. Thus, *n* can be 0. In that case we end up with Verb Raising. If *n* may range over 0 and 1, however, a language will be able to reanalyze a verb with a verb plus Direct Object. And we can go even further up the tree.

To make this a bit more precise, I will briefly discuss an analysis of Verb Raising in Dutch along the lines of Huybregts in as yet unpublished work. According to Huybregts Dutch is similar to German in that two adjacent verbs reanalyze as a verbal cluster, which implies that the pertinent verbs do not (yet) reorder. Compare (12):

(11)a. --, dat ze [$_S$ mij het lied *zingen*] *hoorden*
--, that they me the song sing heard
b. --, dat ze mij het lied [*zingen hoorden*]

Later rules in the Phonological Component (the left branch in the T-model) may reorder the verbs in the verbal cluster. Here too languages may differ, in that different decisions can be taken as to what must or may be reordered. In many cases German will not reorder. In most cases Dutch will. Thus we will finally end up with (11)c:

(11)c. --, dat ze mij het lied [*hoorden zingen*]

It goes without saying that reanalysis of a verb with the projection of another verb can only be seen if reordering is applied. This is the case in for instance Züritüütsch (Zurich German). The data presented below have been taken from Lötscher (1978).

In (12)a we have a case of reanalysis with inversion with two verbs just as in Dutch:

(12)a. Mer händ *em Hans es velo* wele schänke
We have John a bike want-to give

The two phrases that can be incorporated in the verbal cluster if a projection of V is reanalyzed have been underlined in this example. Suppose, then, that *wele* is reanalyzed with an adjacent V'. In that case we get (12)b:

(12)b. Mer händ *em Hans* welen *es velo* schänke

It is even possible to reanalyze a verb and an adjacent VP or at least a projection of V which contains both the Indirect and the Direct Object NP. This will yield sentences like (12)c:

(12)c. Mer händ welen *em Hans es velo* schänke

But that is not all. Since in Züritüutsch the value of *n* in the VPR rule (10) may range over 1, 2 and 3, this value can be varied per application of the rule (also compare data in Haegeman and Van Riemsdijk (1986)). Thus, it

is possible to start on the first cycle with two V^0s and then, on the next cycle, reanalyze a V^0 and an adjacent V′ or V″. The result of this will be that the objects that were stranded on the first application of the rule will be dragged along on the second application of the rule, because they are dominated by the V′ immediately dominating the verbal cluster and/or by the V″ immediately above the latter V′. The type of variation in word order created by this mixed application of VPR is exemplified in (13):

(13) a. das mer em Hans es velo *händ* wele schänke
that we John a bike have want-to give
b. --, das mer em Hans *händ* es velo wele schänke
c. --. das mer *händ* em Hans es velo wele schänke

For a similar example compare Haegeman and Van Riemsdijk (1986: (40), (43)). The words in (13) have been chosen so as to make these examples comparable to the sentences in (12). As for the individual examples under (13), (13)a and (13)c do not seem to pose any problem. (13)a is a straight case of V^0 Raising (cum Inversion), whereas it does not seem to matter whether (13)c is a case of V^0 Raising followed by V′ Rasing or a case of V^0 Raising followed by V″ Raising. However, the latter freedom of derivation is true only if the reanalysis rule VPR is a syntactic adjunction transformation (the type of analysis assumed in Den Besten and Edmondson (1983)). Now note that — as has been pointed out in Haegeman and Van Riemsdijk (1986) — (13)b cannot be derived unless the first application of VPR also creates a new V′ dominating *es velo* and the V^0 *schänke wele* and a new VP dominating the Indirect Object and the new V′, whether VPR is an adjunction rule or a reanalysis rule in the sense of Huybregts. (Haegeman and Van Riemsdijk (1986) choose for reanalysis.) It then follows that (13)c is a case of V^0 Raising followed by V″ Raising and nothing else.

Putting aside all technicalities, note that a language that avails itself of Verb Projection Raising can generate a finite verb between the subject and an object. This is the case in (13)c. It is also the case in the following example (again compare Haegeman and Van Riemsdijk (1986: (40), (43)):

(13) d. --, das mer *händ* em Hans welen es velo schänke

(13)d involves V′ Raising followed by V″ Raising. More important for the problem under consideration, though, is the observation that both in (13)c and in (13)d the finite verb seems to have drifted to the left without the help of a movement rule such as V-to-COMP.

2.4. Observational decidability again

Let us have a look at the imaginary but very realistic example (1) again:

(14) (Hij heeft beweerd, dat hij *had* dat boek willen
He has claimed that he had that book want-to
lezen) (=(1))
read

We can now see that there are two possible analyses for the subordinate clause in (1): embedded V-to-COMP or mixed Verb Projection Raising (i.e. V^0 Raising followed by V′ or V″ Raising) cum Inversion. I have to put in one caveat, though. West Germanic dialects do not only vary as to the scope of Verb Projection Raising, but also in so far as the Inversion rule is concerned. This is amply discussed in Den Besten and Edmondson (1983) and in Haegeman and Van Riemsdijk (1986). Thus, in Standard Dutch a finite modal verb does not have to invert if it is clustered with one and only one infinitive. As soon as the modal is combined with two or more infinitives, inversion is obligatory. The same applies if a temporal auxiliary is clustered with two or more verbs. Now it happens to be the case that in a couple of Dutch dialects, especially in the south, but not only there (cf. the literature mentioned in Den Besten and Edmondson (1983)), a temporal auxiliary will not invert, even though all other verbs will. Thus, in such dialects a Verb Raising cluster such as (15)a will yield (15)b after Inversion:

(15) a. [[*lezen willen*] *had*]
b. [[*willen lezen*] *had*]

Transposed to mixed Verb Projection Raising this implies that (16)a will yield (16)b:

(16) a. $[_V\ [_{V'}$ dat boek $[_V$ *lezen willen*]] *had*]
b. $[_V\ [_{V'}$ dat boek $[_V$ *willen lezen*]] *had*]

Therefore, in such a dialect (1) may seem to pose no problem for observational decidebility. However, if we substitute a modal auxiliary for *had*, we have the same observational problem as in dialects that do invert temporal auxiliaries.

It will be clear that such observational problems can only be solved by applying syntactic tests. However, in the following sections I will show that an example like (1)/(14) may involve a third type of rule, so that even in the case of a dialect that does not invert its temporal auxiliaries it cannot be decided at face value that (1)/(14) involves a case of embedded Verb Second (V-to-COMP).

3. V-to-INFL (V-to-AUX)

V-to-INFL, or to use an older name for INFL: V-to-AUX, is a well-known type of rule since Emonds (1976 and 1978). In English it is weakly

represented by the rule of *have/be*-Raising which is indicated in (17)a:

(17) a. $[_{NP}$ John$]$ $[_{INFL/AUX}$ *e*$]$ (not) $[_{VP}$ *be* here$]$

b. $[_{NP}$ John$]$ $[_{INFL/AUX}$ $is_i]$ (not) $[_{VP}$ v_i here$]$

The ensuing finite verb *is* will be subject to Subject AUX Inversion (i.e. V-to-COMP, cf. Den Besten (1983)), a rule which usually will only apply to base-generated INFL/AUX elements, i.e. to modals and auxiliary *do*. Compare example (18):

(18) $[_{NP}$ John$]$ $[_{INFL/AUX}$ will/must/did$]$ (not) $[_{VP}$ go home$]$

In a language like French on the other hand any leftmost verb inside the VP, whether it be a main verb or an auxiliary, will move to INFL (cf. Emonds (1978)):

(19) French:
COMP $[_S$ NP INFL (NEG) $[_{VP}$ V ....]]

Any verb in INFL will be subject to the V-to-COMP-like rule Subject-Clitic Inversion.

Since INFL is in a sense the finite position of a sentence, we may say that V-to-INFL is a rule creating finite verbs. The same rule has also been posited for other languages than English and French, and given the data available we can already see a certain amount of variation. First of all, it does not seem to be necessary for a language to be VO underlyingly to show visible V-to-INFL behavior. This is the claim for Vata in Koopman (1984), as represented in (20):

(20) Vata:
COMP $[_S$ NP INFL $[_{VP}$ .... V]]

Furthermore, the position of INFL may vary. Thus, in Welsh — according to the analysis in Koopman (1984) — INFL has an S-initial position:

(21) Welsh:
COMP $[_S$ INFL NP $[_{VP}$ V ....]]

It has been claimed by several people that Welsh has an underlying SVO order (cf. Sproat (1985), who, however, assumes that INFL in Welsh has a position between NP and VP at D-structure, after which a special rule will move INFL to the left). If the main verb moves to INFL, a VSO sequence will be created on the basis of an underlying SVO order. Similarly, in Vata

superficial SVO sequences can be created on the basis of an underlying SOV-structure.

Now a minor question and a remark are in order here. The question is the following: Is there a language with an underlying OV order and yet with an INFL between COMP and NP? Compare (22):

(22) As yet unknown language:
COMP [$_S$ INFL NP [$_{VP}$ .... V]]
↑_____|

Such a language would demonstrate OV order in case of auxiliary-main verb combinations, whereas it would be VSO in both main and subordinate clauses just in case the main verb is finite. Whether such languages exist I do not know, and there may be principled reasons why such languages cannot exist at all. For the moment, however, I do not want to answer the above question with a definite yes or no.

The remark has to do with the possibility of language-internal variation. It is imaginable that languages that are in transition from one type of underlying INFL position to another type of underlying INFL position allow INFL to show up in different D-Structure positions across sentences. V-to-INFL will then ensure that the finite verb can appear in various positions (provided V-to-COMP does not undo the effects of V-to-INFL). This is an alternative to what is sometimes regarded as a stylistic rule affecting INFL (cf. Travis (1984)). Such a variation in the (subordinate) position of the finite verb has certainly played a role in the history of English, and probably also in the history of the Scandinavian languages.

Now consider (23), which — if true — would represent another type of variation in the syntax of V-to-INFL:

(23) Koopman (1984): V-to-COMP = V-to-INFL
[$_{\bar{S}}$ INFL [$_S$ NP [$_{VP}$ .... V ....]]]
↑_____|

[Also compare Platzack's COMP/INFL Parameter (Platzack 1983).] According to Koopman (1984) COMP is equal to INFL in the V2 languages (Dutch, German, Norwegian, etc.). V will only go to INFL in root clauses. In subordinate clauses complementizers will occupy the position of INFL and will thereby prevent V from moving to INFL (COMP).

There is at least one problem with this analysis, although not necessarily a devastating one. In the case of the 'accepted' V-to-INFL languages it is pretty clear that INFL is *the* position for let us say finite morphological material. If in such languages we want to realize a finite verb the V or the verbal stem has to go to that morphological position, although we have to

allow for the possibility that in some languages finiteness is only realized by positioning without any morphological reflex on the verb. Languages like Dutch or Norwegian, however, do have some finite morphology and in main clauses this morphology shows up in or on the position that Koopman hypothesizes is the INFL position. But why, then, doesn't this INFL position in subordinate clauses look like a morphological INFL position at all? This is not to say that there can be no inflection on complementizers at all. In many Dutch and German dialects there are so-called agreeing complementizers (cf. i.a. Den Besten (1983) and Bayer (1984)). But never do we find past tense complementizers, i.e. complementizers taking past tense endings. In fact the realization of the morphological material for Tense and Agreement is always on the verb and therefore the agreement phenomena on the complementizer must be considered a secundary phenomenon, which is also in accordance with the fact that not all of the dialects of Dutch and German evidence agreeing complementizers, while those dialects that do need not replicate their full verbal paradigm of person and number agreement on their COMPs. If we want to accept Koopman's analysis, we should ask ourselves why this should be the case.

At the moment I do not know of any clear answer to this question, although I do not want to imply that no such answer could be found. However, I would like to claim that there are other problems with Koopman's hypothesis which will lead to the conclusion that V-to-COMP cannot be V-to-INFL, attractive though this hypothesis may seem. Under this opposite hypothesis the defectiveness of COMP-inflection still is sort of a problem, and an interesting one at that, but certainly not a central problem for the theory as such.

In order to be able to discuss the new problem I have to briefly deal with another aspect of Koopman's theory of Verb Movements. In Koopman's theory verbs move to INFL because that has something to do with unindirectionality of Case assignment. All languages are supposed to assign either from left to right of from right to left. In Vata (compare (20) above) Case assignment goes from right to left. That accounts for the underlying OV order. However, in order to be able to assign Nominative INFL must be lexical. If there is no independent INFL material to lexicalize that position, we need a V to fill that position. Welsh (compare (21) above) is Case assigning from left to right, which accounts for the underlying positions for V and INFL. Here too V must move to INFL if INFL is not lexical. Dutch is a bit more complicated because that language has an underlying SOV order, whereas the position of INFL (= COMP, compare (23) above) indicates that Case assignment is from left to right, but Koopman has found a way to handle this problem by assuming a Case

position on the lefthand side of the VP which may be related to the 'Clitic' position for weak pronouns in Dutch. Now if Dutch is left-to-right Case assigning, we may assume, following Koopman, that complementizers serve as lexicalizers of INFL in subordinate clauses so that INFL can assign Nominative, whereas V has to move to INFL (COMP) in main clauses because no lexical fillers are available for INFL in root sentences.

Now let us have a look at a language which — in so far as I can see — cannot be accommodated under Koopman's hypthesis. That language is Yiddish. The pertinent data has already been discussed in Den Besten and Moed-van Walraven (1986). The next section will give a brief overview of the data and arguments that can be found in that paper and will then turn back to the problem of observational decidability which is the central topic of the present article.

4. V-to-COMP ≠ V-to-INFL

4.1. Introductory remarks

This section is divided into three subsections. In section 4.2. I will discuss some basic facts about word order in Yiddish. It will be shown i.a. that Yiddish seems to have two verb movement rules for finite verbs. This will only be problematic for Koopman's theory if these two phenomena cannot be reduced to one process. However, in section 4.2. it will be shown that V-to-COMP and V-to-INFL are separate phenomena and that it can be tested whether the verb movement observed is embedded V-to-COMP or V-to-INFL. Given these conclusions we can return to the analysis of example (1) and give it a final look in section 4.3.

4.2. Yiddish

Important for what follows is the observation that Yiddish allows V-to-COMP, more specifically: V2, in embedded clauses. In this respect it is like languages such as Frisian or Icelandic (cf. Haider and Prinzhorn (1986)): embedded Topicalization is possible and therefore embedded V2 is possible. Furthermore Yiddish is SVO with the well-known V2/V1 constraints for main clauses. However — and this is also important for what follows — Yiddish is SVO with some preverbal junk (clitics, adverbs, etc.). Unlike Icelandic (cf. Thráinsson (1986)) Yiddish seems to really obey a V2 constraint in subordinate clauses, i.e. the finite verb immediately follows the subject NP, unless something has been topicalized.

This subordinate V2 constraint (also discussed in Travis (1984)) can be

shown by means of what I called 'preverbal junk' above. First consider example (24)a:

(24) a. --, az er hot *avek*gešikt dem briv
--, that he has away-sent the letter

This is a normal subordinate clause with SVO word order and a particle verb (or: seperable compound). Inside the particle verb the particle precedes the real V. In this sense Yiddish is more on the side of the SOV languages Dutch and German with their preverbal particles, than on the side of SVO languages such as English or Norwegian. The preverbal particle *avek* 'away' is one of the many cases of 'preverbal junk'. Now, if there is no auxiliary and if the main verb must be finite, *avek* and *šikn* are put in the inverse order. Compare (24)b:

(24) b. --, az er šikt *avek e* dem briv
--, that he sends away *e* the letter

It seems reasonable to assume that a movement rule has applied here, as is indicated by the *e*.

Another example of preverbal junk that must precede a nonfinite verb but must follow the finite form of the same verb can be found in (25):

(25) a. --, az er vet *mir moixl* zain
--, that he will to-me forgiving be
'--, that he will forgive me'
b. --, az er iz *mir moixl e*
--, that he is to-me forgiving *e*
'--, that he forgives me'

In this case the preverbal junk consists of the Dative clitic (or at least: weak pronoun) *mir* 'me' and the *lošn-koideš* word *moixl* 'forgiving' which derives from Hebrew (the *lošn-koideš* 'holy language'). *Moixl* is an old Hebrew participle and such participles form particle verbs with the copulas *zain* 'be' and *vern* 'become'. The same rule that inverts the main verb and the preverbal junk in (24)b is applied in (25)b.

In order to see that it is finiteness that is at stake in (24)b and (25)b compare the following examples:

(26) a. --, kedei *avek* (tsu) šikn dem briv
--, in order away (to) send the letter
b. --, kedei *mir moixl* (tsu) zain
--, in order to-me forgiving (to) be

In these example the main verb and the preverbal junk are not inverted because the verb is not finite.

Note that this verb movement rule also applies to auxiliaries and so is not restricted to main verbs:

(27) a. --, az er hot *haint nit* gekent šraibn
--, that he has today not been-able-to write
b. --, az er ken *haint nit e* šraibn
--, that he can today not *e* write

These examples also give some more information on 'preverbal junk' in Yiddish.

4.3. V-to-COMP or V-to-INFL?

The preceding section may have made clear that Yiddish avails itself of a V2-like rule in embedded clauses which puts the finite verb next to the subject. In the case of many other languages this observation would suffice to call the pertinent rule V-to-INFL, because V-to-COMP is a main clause rule. However, Yiddish makes ample use of embedded V2, so we have to ask ourselves whether the phenomenon observed in (24)-(27) is V-to-COMP or V-to-INFL.

A well-know aspect of V2 in root sentences is that the finite element will always follow a *wh*-phrase. Compare (28)a:

(28) a. Far vos *hot* er *e* zi ništ lieb *e* ?
Why has he *e* her not lief/dear *e* ?
'Why doesn't he love her?'

The verb involved here is the particle verb *liebhobn* 'love'. This explains the *e* in sentence-final position. The other empty element indicates how I think the finite verb really ends up in COMP: not in one swoop but in two steps. This will become clearer if the following example is considered:

(28) b. Ix freg zix, far vos er *hot* zi ništ lieb *e*
I wonder, why he has her not lief *e*
'I wonder, why he does not love her'

In the pertinent *wh*-clause — in spite of the fact that *hot* has been moved from the position past the particle to a position next to the subject NP, the finite element does not show up in COMP position (i.e. immediately following the *wh*-phrase). So there is a difference between main and subordinate *wh*-clauses in so far as verb movement is concerned. This in itself is already an argument against equating the verb movement rule in (24)-(27) with V-to-COMP. Yet it is possible — given the fact that Yiddish makes use of embedded V-to-COMP — that Yiddish reanalyzes all subordinate S-es as S"s (compare (9) in section 2.2.), so that V-to-COMP (V2) must be applied in all subordinate clauses. If this is the case, there is

only one verb movement rule in Yiddish and Yiddish will not pose a problem for Koopman's theory.

Although the grammar suggested looks nonsensical, the suggestion as such gives us an opportunity to discuss some differences between V-to-COMP and V-to-INFL.

We know from several languages, Yiddish included (cf. the literature mentioned in Den Besten and Moed-van Walraven (1986)), that embedded V2 (V-to-COMP) creates islands. Embedded V-to-INFL, however, does not create islands at all. Now consider (29)a:

(29) a. *der jid vos in Boston *hobn* mir gezen iz a groiser lamdn
the man that in Boston have we seen is a great scholar

This example involves an NP with a relative clause with embedded topicalization and V2. The relativization strategy used is *Wh*-Movement. In order to understand that *Wh*-Movement has violated an island here, an island created by embedded V-to-INFL, we have to compare (29)a with (29)b:

(29) b. der jid vos in Boston *hobn* mir *im* gezen is a groiser
the man that in Boston have we him seen is a great
lamdn
scholar

This example shows that relativization and embedded topicalization cum V2 do not really exclude each other. (29)a makes use of the other strategy for relativization, i.e. resumptive pronouns. Since no movement is involved the island created by embedded V-to-COMP cannot be violated and the sentence is grammatical.

Now consider (30), which is more or less comparable to (28)b above:

(30) der jid vos die mume *hot* lieb *e* iz a stoljer
the man that auntie has lief *e* is a cabinet maker

This example involves the *Wh*-Movement strategy for relativization. Inside the relative clause a verb movement rule has been applied. This movement has not created an island, because (30) is grammatical. And therefore it is tempting to say that the pertinent rule is not the island-creating V-to-COMP rule but V-to-INFL. However, a defender of a unified verb movement analysis might want to claim that Subject-first structures to which V-to-COMP has been applied do not create islands so that (30) and (28)b can be analyzed as cases of embedded V-to-COMP after all.

I do not think we need this assumption. What is more, we can show on the basis of Frisian data that V2 in an embedded Subject-first structure does create an island. Frisian, which is SOV underlyingly, allows embedded V2 structures inside *that*-clauses of verbs of saying. Now

consider the following examples:

(31) a. Wat$_i$ sei hy/er, dat hy/er my t_i jaan *soe*?
What$_i$ said he , that he me t_i give would?
b. **Wat*$_i$ sei hy/er, dat hy *soe* my t_i jaan *e* ?

As can be concluded from these data, embedded V-to-COMP does create an island even if the finite verb preposed follows a Subject NP.

Therefore, I want to claim that embedded V-to-COMP always creates an island. This implies that the verb movement rule that applies inside the relative clause in (30) and inside the *wh*-clause in (28)b cannot be V-to-COMP and so must be V-to-INFL. Q.E.D.

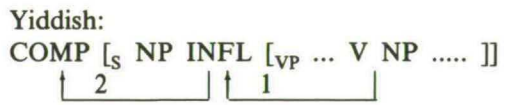
Since we now have found a language with two full-fledged verb movement rules, V-to-COMP and V-to-INFL, I do not really see how Koopman's hypothesis that the Germanic V-to-COMP rule is a special instance of the V-to-INFL phenomenon can be upheld, since I do not see how to accommodate the Yiddish facts to Koopman's thesis of the unidirectionality of Case assignment. Therefore, from now on I will assume that there are two rules: V-to-COMP and V-to-INFL.

I would like to strengthen my position by making the following claim:

(32) All languages with bound INFL morphemes have a rule V-to-INFL

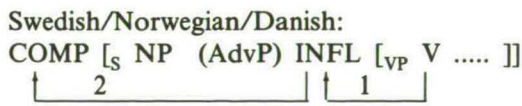
This implies that all V2 languages have both the V-to-COMP rule and the V-to-INFL rule. However, in the case of many languages we are not able to see V-to-INFL because the rule is local under all circumstances. In Yiddish the rule is not necessarily local, because there can be some preverbal junk as I termed it:

(33) a. Yiddish:



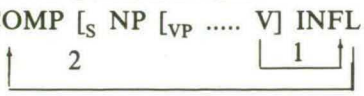
In Swedish, Norwegian and Danish (Icelandic excluded) the V-to-INFL rule is local, because there is no preverbal junk. Certain adverbial phrases may precede the verb but they must occur in the position between the subject NP and INFL:

(33) b. Swedish/Norwegian/Danish:



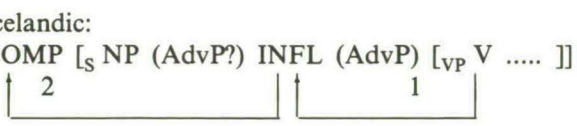
Similarly for Dutch, German and Frisian. I will assume that INFL is to the right of V, immediately adjacent to the VP, and therefore we cannot see the verb move to INFL:

(33) c. Dutch/German/Frisian:



In Icelandic things look a bit more complicated in that the INFL position seems to be embraced by two adverbial positions, although another analysis is envisageable (cf. Thráinsson (1986)). In any event, adverbials that in Continental North Germanic precede INFL (compare (33)b) follow INFL in Icelandic:

(33) d. Icelandic:



It follows from the above considerations that V-to-COMP is a misnomer and should be replaced by INFL-to-COMP. For the rest of this paper, however, I will stick to the wrong terminology since nothing hinges on that.

I would like to add here that statement (32) above is really meant as a universal for those languages which express the concepts of Tense, Modality of whatsoever by means of the verb (whether by verbal morphology or not). Other languages, such as Luiseño and the like, avail themselves of special INFL morphemes and therefore do not need the V-to-INFL rule. I think this may be the beginning of an explanation for the existence of the V-to-INFL as such. The explanation for V-to-COMP (or: INFL-to-COMP) must be completely different.

4.4. Observational decidability – for the last time

Now that we know this we can see that example (1), repeated her as (34), is becoming even worse in terms of observational decidability:

(34) (Hij heeft beweerd, dat hij *had* dat boek willen
He has claimed, that he had that book want-to
lezen) (=(1))
read

Is this a case of Verb Projections Raising? Or is it a case of embedded V-to-COMP? Or is it a case of V-to-INFL? We cannot really tell. And so we need syntactic tests to decide the issue.

In the case of some languages/dialects the decision procedure may be easy. For instance, if we can show that in a language/dialect under consideration the pertinent main verb does not allow embedded topicaliza-

tion cum V2 of nonsubjects, we may decide that (34)/(1) does not involve embedded V-to-COMP. Futhermore, if we can show that in a language/dialect under consideration (34)/(1) is grammatical whereas (35) is not, we know that (34)/(1) does not involve VPR:

(35) (Hij heeft beweerd, dat hij *had* willen dat boek lezen)
He has claimed, that he had want-to that book read

On the other hand, if we can show that in a language/dialect under consideration the positioning of the finite verb between the Subject and the Direct Object is optional, it does not follow that (34)/(1) does not involve V-to-INFL, since, as I have pointed out in section 3., there may be languages/dialects that are in a transition from a stage with INFL in one position to a stage with INFL in another position. For such languages/dialects we need other tests to decide in favor of or against V-to-INFL.

A crucial test will be *Wh*-Movement, as discussed in section 4.3. If *Wh*-extraction makes (34)/(1) ungrammatical, we may decide that (34) involves V-to-COMP in the embedded clause. If on the other hand *Wh*-extraction is grammatical, no embedded V-to-COMP need to be involved. Depending upon the results of other tests further decisions can be taken. Unfortunately, in the case of (34)/(1) it will not be clear after *Wh*-extraction whether *had* still is in an 'abnormal' position. In the case of Dutch and German dialects (or in the case of older phases of Dutch and German), however, we can make use of the phenomenon of *wat voor*-Split. The testing examples we need should look as follows:

(36) a. (*Wat*$_i$ heeft hij beweerd, dat hij *had* t_i voor boeken
What$_i$ has he claimed, that he had t_i for books
willen lezen?)
want-to read ?

b. (--, *wat*$_i$ hij *had* t_i voor boeken willen lezen?)
--, what$_i$ he had t_i for books want-to read ?

We can now make the following predictions. (a) If another test has already shown that the pertinent language/dialect does not apply VPR (but for V^0 Raising), the examples in (36) will be ungrammatical iff there is no V-to-INFL available. (b) If, however, the pertinent language/dialect does avail itself of VPR, the examples in (36) will not be ungrammatical, because it has been shown in Haegeman and Van Riemsdijk (1986) that VPR-clusters may contain *wh*-traces. It therefore follows that there will be many cases where we still cannot decide and that we will need a whole array of tests if we want to come to a final decision (if possible at all).

This result may be somewhat disappointing. However, note that I am talking here about specific examples, i.e. individual sentences such as

(34)/(1). If a language makes use of VPR plus V-to-INFL to the far left or makes use of embedded V-to-COMP plus VPR and/or V-to-INFL to the far left, sentences such as (34)/(1) will have more than one analysis. This may be cumbersome at the level of one sentence. Yet at the level of grammar there is no such problem. At the level of grammar we can predict how many different analyses are available for any given sentence. For instance, if the grammar of language L_i (or $G(L_i)$) contains VPR and V-to-INFL to the right of the Subject, $G(L_i)$ will assign two analyses to the subordinate clauses in (36) and (34)/(1). If $G(L_i)$ contains VPR and embedded V-to-COMP, $G(L_i)$ will assign two analyses to the subordinate clause in (34) and one to the subordinate clauses in (36). If $G(L_i)$ contains embedded V-to-COMP and V-to-INFL to the right of the Subject, $G(L_i)$ will assign two analyses to the subordinate clause in (34) and only one to the subordinate clauses in (36). And finally, if $G(L_i)$ contains all three rules, $G(L_i)$ will assign three analyses to the subordinate clause in (34) and two to the subordinate clauses in (36). Therefore, everything is well-defined at the level of $G(L_i)$, whereas things may look messy at the level of individual sentences — depending upon one's esthetic feelings concerning such analytical freedom.

5. The questions in (2) again

The preceding section, more particularly subsection 4.4., has shown how many different analyses are available for the made-up sentence (1). At the same time, however, subsections 2. through 4. have given us an answer (no doubt an incomplete one) to question (2)a, repeated here as (37)a:

(37) a. =(2)a. Which decisions have to be taken at the level of Universal Grammar in order to permit the syntactic variation of West-Germanic (Middle Dutch, Modern Dutch, Dutch dialects; same for German and the older phases of English; Afrikaans)?

The answer happens to be rather complex. There are supposed to be three types of rules: V-to-COMP, V-to-INFL, and Verb Projection Raising. Verb Projection Raising is in fact a complex of two rules: Reanalysis and Inversion. Variation across dialects as well as inside dialects can be found for every single rule type. V-to-COMP is a main clause rule and therefore it can also show up in embedded contexts in the case of direct speech and the like. However embedded V-to-COMP may also be found in subordinate clauses introduced by lexical complementizers. In so far as I can see, this type of embedded V-to-COMP is restricted to declarative subordinate clauses, and therefore embedded V-to-COMP will always be V2. V-to-INFL varies according to the base position of INFL, and languages in

transition may allow more than one basic INFL position (although there will be only one INFL per clause). Verb Projection Raising, or V^n Raising, may vary as to the value of *n* in so far as Reanalysis is concerned, whereas the Inversion part of VPR may vary as to the elements that may undergo Inversion inside the VPR cluster.

Let us now have a quick look at the other questions in (2), repeated here as (37)b-d. First the historical question (2)b:

(37) b. =(2)b. Howcome Dutch still is SOV, unlike English, Swedish and the other North Germanic languages, or Yiddish (which is a Continental West Germanic language after all)?

We know that there has been a lot of freedom of word order in the older stages of Dutch and German, not unlike what was going on the contemporaneous stages of English, Swedish, etc. Yet Dutch (and German) never became SVO languages.

I would like to offer the following suggestion. Suppose that an underlying order ... NP ... Infl ... VP is a necessary condition for the development from underlying SOV to underlying SVO. (As yet no SVO-INFL language has been found, which may be a related matter.) If this suggestion is correct, we may hypothesize that maybe .. NP ... INFL ... VP never arose in Dutch (or German) unlike developments in English, Swedish, etc. If this way of reasoning is correct, we can rephrase the question in (37)b: "Is it true that neither Middle Dutch not Middle High German (nor Frisian nor Low German) ever developed an underlying INFL-VP order?" It is quite possible that this question can be answered positively. I know at least for Middle Dutch that the many cases of subordinate clauses with an object NP following the main verb (be it finite or not) can be analyzed as involving a Focus position to the right of the VP. This leads to new questions such as "Why did Middle Dutch never develop an underlying INFL-VP order?" of "Why did English etc. develop an INFL-VP order?" or "Why did English etc. develop an underlying VO order?" But maybe such questions should not be asked, because there may be no answers to them.

Next is question (2)c:

(37) c. =(2)c. Why is V2/1 such a difficult rule to learn under L2-acquisition, and what exactly is going wrong?

We might call this the Clahsen-and-Muysken problem, on account of Clahsen and Muysken (ms.). For a possible answer to the first part of the above question I would like to refer to that paper. Yet, more can be said about this topic. The final version of Clahsen and Muysken (ms.) discusses a suggestion of mine to the fact that maybe at a certain stage foreigners

tend to interpret V2 in Dutch and German as an indication for an INFL position between subject NP and VP. At the initial stage in unmonitored L2-acquisition of Dutch and German V2 is misconstrued as an indication for an underlying SVO order. As soon as the correct underlying SOV order is acquired, the finite verb tends to show up in between NP and VP. Also in subordinate clauses this NP-INFL-VP order can be found. Therefore, the above question could be rephrased as follows: "Why do foreigners tend to acquire Vata-like structures, when learning Dutch or German?" or even "Why is V-to-INFL more accessible than V-to-COMP" or rather: "How come V-to-COMP can be misconstrued as an indication for V-to-INFL with INFL to the left of the VP?"

The answer(s) to the final question, (2)d, is/are partly dependent upon the answer(s) to (2)c and its variants. (2)d is a composite question and runs as follows:

(37) d.1 =(2)d.1 Why does Afrikaans, even in its lower lects (Fly-Taal excluded), have such a West-Germanic appearance (in contrast to the Dutch Creole languages Negerhollands, Berbice Dutch, Skepi Dutch)?

(37) d.2 =(2)d.2 Is it really true that all lects of Afrikaans share the same underlying (West-Germanic) syntax with Dutch, at least in so far as general features are concerned?

The reason why I think (2)d.1 is a valid question has been expounded in section 1. As for Fly-Taal (also: Flaaitaal), this an Afrikaans pidgin spoken by South African blacks whose mother tongue is a Bantu language (cf. Makhudu (1984)). This pidgin is SVO with in principle no V-to-COMP. It must be related to other varieties mentioned in the literature, such as Pidginized Afrikaans (mainly spoken by whites) and Kaffir Afrikaans (a name that can be found in the older literature). Since Fly-Taal is a pidgin I would like to restrict my attention to Afrikaans as spoken by the so-called whites and the so-called Coloureds.

The West Germanic appearance of Afrikaans must have something to do with the fact that quite unexpectedly the Khoekhoen (Hottentots) and the slaves of the Early Cape Colony (17th/18th century) created SOV pidgins. This, however, is related to the fact that the Hottentots spoke an SOV language themselves. Most probably the slaves learned this pidgin from the Hottentots, or at least modeled their own pidgin upon the pidgin of the Hottentots, although the fact that the slaves from India and Ceylon spoke SOV languages too, may have played a role as well (cf. Den Besten (1986)). Thus it may well be that these SOV pidgins gave the Khoekhoen and the slaves a clue to figure out the syntax of the finite verb in Dutch. In this context we should also know that the syntax of Topicalization/*Wh*-

Movement in Khoekhoe (Hottentot) creates XP-COMP-Subject etc. sequences if a nonsubject is moved to COMP. (I won't discuss the Subject Clitic doubling phenomenon here.) Therefore, it is quite possible that the Khoekhoen were able to construct a V-to-COMP rule on the basis of the linguistic data available to them, provided they were able to figure out the V-to-INFL rule of Dutch.

This may be a partial answer to the historical question (37)d.1/(2)d.1. Yet, we may wonder whether V-to-COMP was acquired at all, as is indicated by question (37)d.2/(2)d.2. I do not have an answer to this question yet, but I will show some data that may throw some doubt upon the fairly general assumption that even 'Coloured' Afrikaans is in essence a West Germanic language. The relevant data, which I have taken from Ponelis (1979) and Lubbe (1983), will be presented by way of promissory note for future research.

It will not come as a surprise that the finite verb may show up in unexpected positions in declarative subordinate clauses:

(38) a. Jy wou hê ek *moet* hom in jou plek *e* aanstel
You wanted-to have I must him in your stead *e* appoint
'You wanted me to appoint him in your stead'

b. Beteken dit net *dat* daar *was* nie mense *e* nie?
Means it only that there were not people *e* not?

Although, (38)a is somewhat strange to a Dutch ear, I will assume that is represents a case of embedded V2 of the direct speech type. As for (38)b, this may be embedded V-to-COMP or V-to-INFL (with *mense* inside the VP). Note that we can exclude Verb Projection Raising, since Afrikaans Verb Raising is more or less similar to VR in Dutch. Finally, note that finite verbs may also show up in VP-final position.

Thus far Afrikaans looks pretty much like what we are used to, when we speak about word order variation in the syntax of verbs. Now consider the following examples:

(39) a. Jy weet wie *moet* ek in jou plek *e* aanstel
You know whom must I in your stead *e* appoint

b. Weet jy wat *dink* ek *e*?
Know you what think I *e*?

c. Ek gee nie om wie *tree* uit *e* nie
I don't care who treads out *e* not

Except for maybe example (39)b none of these sentences sounds normal to Dutch ears. V2 in *wh*-clauses is only possible under direct speech-like circumstances in Dutch. Afrikaans goes much further. And in so far as I know, nothing of this type can be found in other Germanic languages or

dialects. And so it is possible that this embedded V2 phenomenon is not an instance of V-to-COMP at all. If this is right we are left with the option that the embedded finite verbs in (39)a-c are in an INFL position between COMP and subject NP (compare Welsh in (21)), which would imply that Afrikaans has at least two, if not three, possible INFL positions. This conclusion may not be appealing. Yet it may show that despite codification and standardization there is still a lot of variation in Afrikaans which in the long run may make Afrikaans drift further away from Dutch.

Possible arguments for two more INFL positions besides the sentence-final INFL position can be derived from observations on relative clauses and *of*-clauses (*whether*-clauses). Lubbe (1983) quotes the following examples of relative clauses from the literature:

(40) a. en die mense *wat* eintlik kan baie kinders hê ,
and the people who actually can many children have,
dié het net een of twee
those have just one or two

b. ek dink 'n man *wat* soek iets *e* kry dit nooit
I think a man who looks-for something *e* gets it never
(19th century; spelling modernized)

One could use these examples tc argue for an optional INFL position preceding VP. Since these are the sole examples in Lubbe (1983), however, I would prefer an argument on the basis of *Wh*-extraction out of subordinate clauses such as the one in (38)b, but no such example is given by Lubbe.

More interesting are the following cases of *of*-clauses (*whether*-clauses). Since *of* 'whether, if' is not a *Wh*-word, I will gloss it as 'if':

(41) a. Ek het gewonder *of sal* hy *e* kom
I have wondered if will he *e* come

b. Niemand wil sê *of is* hy ontvoer *e* nie
Nobody wants say if has-been he abducted *e* not

It is of course possible that this is embedded V1 (V-to-COMP), but nothing like this is known for the European Germanic languages. It looks like embedded V-to-COMP inside COMP-headed subordinate clauses is restricted to declarative subordinates. On the other hand it is suspicious that such V1 phenomena never show up in *dat*-clauses. Nevertheless, if we analyze the subordinate clauses in (41) as involving V-to-INFL, the examples in (41) can be compared to those in (39). As I have suggested with regard to the pertinent *wh*-clauses, the subordinate clauses in (39) may involve V-to-INFL, with an INFL position between COMP and subject NP. If this suggestion is correct, it should also be possible to find doubly

filled COMPs followed by a finite verb, since double filled COMPs are possible in Afrikaans. And apparently such subordinate clauses do exist (H.J. Lubbe p.c.), although they are not mentioned in Ponelis (1979) or Lubbe (1983):[1]

(42) --, hoekom *dat het* hy dit gedoen (also with *lat* 'that')
--, why that has he it done

[Note that unlike English *how come* Afrikaans *hoekom* 'why, (lit.) how come' is a *wh*-word triggering V2 in root sentences.] However, I have been informed that examples such as those in (42) and (41) are considered to be 'very low' Afrikaans. Be that as it may, these examples give us a clue for a possible analysis of the colloquial cases in (39). Whether this has implications for the analysis of the V2 phenomenon in main clauses is a question which I would like to leave open.

6. Concluding remarks

This concludes our Odyssey through the syntax of verbs. This paper has discussed a made-up West Germanic example and has shown on the basis of what we know about the syntax of verbs that in principle three analyses are possible: embedded V-to-COMP, Verb Projection Raising and V-to-INFL. Furthermore, it has been shown what the space of variation for these three rules may look like. Finally, some related questions have been dealt with in section 5. and it has been shown that the syntax of Afrikaans poses some new and unexpected problems.

1. Note that the examples in (41) and (42) are instantiations of the hypothetical schema (22). However, it would be too rash to conclude that also V2 in *wh*-root clauses, and even V2 in declarative root sentences, is a case of V-to-INFL as it is in Welsh.

Remarks concerning chapter 3

R1. *Finite verbs in Afrikaans*

This paper on decidability in the syntax of verbs can be seen as a research program. It was formulated with a special view to studying the bewildering syntax of verbs in Afrikaans, which this chapter merely gives a partial overview of. For more data see Ponelis (1979) and Lubbe (1983) and the literature mentioned there.

In the mean time some progress has been made with regard to the question of whether V2-like phenomena in embedded declaratives introduced by COMP are instances of V-to-COMP or V-to-INFL. A crucial test can be constructed with the finite auxiliary *het* 'have'.

Het 'have' displays exceptional behavior under Verb Raising in that it has to be last in the verbal cluster — also if it governs a cluster of two or more infinitives. Compare the following examples:

(i) a. --, dat ek nie vir hom gesien *het* nie
--, that I not Obj.Marker him seen have not
b. --, dat hy die klip sien val *het*
--, that he the stone see fall has

[Note the so-called Infinitivus pro Participio effect in (i)b: *sien* 'see' instead of *gesien* 'seen'.]

As all finite verbs in Afrikaans *het* may move to the position following the subject. Compare:

(i) a.' --, dat ek *het* nie vir hom gesien nie
b.' --, dat hy *het* die klip sien val

In view of the special position of *het* in verbal clusters it is most unlikely that the examples in (i)a.' and (i)b.' are cases of Verb Projection Raising since there is little reason to assume that the landing sites of Verb Raising and Verb Projection Raising will be different for one and the same language. Also the position of the first *nie* in (i)a.' can provide arguments against an analysis in terms of Verb Projection Raising.

If we now try to put *het* in post-Subject position in relative or interrogative *wh*-clauses the result will be ungrammatical:

(ii) a. *die man wat_i jy *het* t_i mee gesels
the man $that_i$ you have t_i with talked

b. *Ek weet nie meer *wat*$_i$ hy *het* vir my t_i gesê nie
I know not anymore what$_i$ he has to me t_i said not

Therefore, we may conclude — in accordance with the ideas set out in chapter 3. — that finite verbs in post-Subject position in Afrikaans subordinate clauses indicate an embedded V-to-COMP structure. This means that we can reduce the number of possible INFL positions in Afrikaans by one.

As for Lubbe's examples of relative clauses with finite verbs preceding objects (i.e. (40)a and b of chapter 3) it should be noted that there is no reason to assume that they require a a V-to INFL analysis. What is more: the ungrammaticality of (ii)a above calls for a different explanation.

First consider example (40)a repeated here as (iii):

(iii) en die mense *wat* eintlik *kan* baie kinders hê ,
and the people who actually can many children have,
dié het net een of twee
those have just one or two

This may be a case of Verb Projection Raising of *baie kinders hê* to the right of *kan*. Such an analysis is possible because Afrikaans makes limited use of Verb Projection Raising.

No such analysis is possible for Lubbe's 19th century example (40)b repeated here as (iv):

(iv) ek dink 'n man *wat soek* iets kry dit nooit
I think a man who looks-for something gets it never

This may look like an obvious case of either embedded V-to-COMP or V-to INFL. Yet, an alternative analysis is available: Object Extraposition of *iets*. A couple of nonstandard variants of Afrikaans have availed themselves of this option, which gives some of their sentences a 'Middle Dutch' appearance. For the time being I will assume that (iv) represents such a nonstandard lect.

R2. *V2 islands in Yiddish*

In a recent paper by Diesing (to app.) the claim put forward by Lowenstamm (1977) and Travis (1984) and repeated by Koopman (1984: 228-229) and Den Besten and Moed-van Walraven (1986) to the effect that embedded V2 (V-to-COMP) to the immediate right of a COMP position in Yiddish creates islands is criticized.

Diesing claims that both main clause and embedded V2 in Yiddish are cases of V-to-INFL and that the Spec,IP position of Yiddish is not an A-position but an A'-position. Therefore, and since subjects are base-

generated within the VP, both subjects and nonsubjects can raise to the Spec,IP position. Raising to Spec,IP combined with V-to-INFL yields the V2 effect. (For the terminology used, compare Chomsky (1986).) Furthermore, Diesing claims that in so far as embedded V2 with a nonsubject in Spec,IP impairs extraction at all the resultant unacceptabilities are dependent upon discourse effects.

Diesing is forced to assume, though, that *Wh*-Movement in main clauses chooses Spec,IP as its landing site whereas embedded *Wh*-Movement goes to Spec,CP, due to the following contrast:

(i) a. Vuhin geyt ir?
Where-to go you (pl.)?
b. Ikh veys nit vuhin ir geyt
I know not where-to you (pl.) go
(= examples (12) and (13) from Diesing (to app.))

Since the order of the embedded clause in (i)b is *vuhin ir geyt* and not *vuhin geyt ir* we have to conclude that *ir* is in Spec,IP and *vuhin* in Spec,CP. Under the assumption that V2 in Yiddish is V-to-INFL the main clause in (i)a can be analyzed as an IP with the *wh*-phrase in Spec,IP. An extra stipulation precluding the generation of a CP node in main clauses will prevent the application of the traditional CP analysis for (i)a with V-to-COMP and *Wh*-to-Spec,CP.

Diesing argues that the IP analysis for (i)a must be right because of the ungrammaticality of example (ii):

(ii) *Vos hot dem rov Max gegebn?
What has to-the rabbi Max given?

Following Diesing's line of thought we have to analyze (ii) as follows:

(iii) $[_{CP}\ Vos_i\ [_C\ hot_j]\ [_{IP}\ dem\ rov_k\ [_{I'}\ v_j\ [_{VP}\ Max\ v_j\ gegebn\ t_i\ t_k]]]]$

Since the IP is not an island there is no way for Diesing to explain the ungrammaticality of (ii) except for the above-mentioned stipulation to the effect that CP be excluded as the root node for a main clause. One could of course — as Diesing correctly points out — try to exclude analysis (iii) by assuming that the *wh*-phrase first has to move to Spec,IP and then to Spec,CP but that would exclude the grammatical example (i)b.

I find Diesing's dual analysis for *Wh*-Movement unattractive because of the stipulations needed. Note that Diesing also has to prevent the generation of ungrammatical embedded *wh*-clauses of the following type:

(iv) a. *--, $[_{CP}\ C\ [_{IP}\ vuhin_i\ [_I\ geyt_j]\ [_{VP}\ ir\ v_j\ t_i]]]$
where-to go you
(C empty or not)

b. *--, [$_{CP}$ vuhin$_i$ C [$_{IP}$ t_i [$_I$ geyt$_j$] [$_{VP}$ ir v_j t_i]]]
where-to go you
(C empty)

(Compare what is said about (i)a and b above.) Nothing prevents the generation of these examples in Diesing's framework unless extra stipulations are made.

Under the embedded double CP analysis, which Diesing rejects, structures such as (iv)a and b will not arise because Spec,IP is not assumed to be an A'-position. Furthermore, the double CP analysis can also exclude the ungrammatical example (ii). According to this analysis the position of *dem rov* 'to the rabbi' in (ii) requires an extra Spec,CP position and therefore (ii) will have to be analyzed as follows:

(v) [$_{CP_1}$ Vos$_i$ [$_C$ hot$_j$] [$_{CP_2}$ dem rov$_k$ [$_C$ v_j] [$_{IP}$ Max v_j [$_{VP}$ v_j gegebn t_i t_k]]]]

(Whether the subject *Max* has been moved from a Spec,VP to the Spec,IP position is irrelevant for the present discussion.) Because both *vos* and *hot* have been extracted out of an embedded V2 structure structure (v) — and therefore example (ii) — will be ruled out.

Now note that according to Diesing embedded V2 in Yiddish does not create islands modulo certain discourse factors. If her observations are correct explanations for the ungrammaticality of (ii) and (iv)a and b based upon the double CP analysis must be rejected and we will probably have to go along with Diesing's analysis for V2 and *Wh*-Movement in Yiddish in spite of all the stipulations needed.

Yet, this does not necessarily endanger the approach put forward in my paper on decidability in the syntax of verbs. According to Diesing (to app.) there are two parameters pertaining to V2 phenomena. On the one hand languages can vary as to whether V2 is the result of V-to-COMP (Continental Germanic minus Yiddish) or V-to-INFL (Yiddish, Vata, etc.). On the other hand languages can vary as to whether Spec,IP is an A-position (Germanic minus Yiddish; Vata, etc.) or an A'-position (Yiddish). If this theory is correct it can still be maintained that double CP structures with embedded V2 create islands. For relevant data compare the discussion of the Frisian examples (31)a and b in my paper and the literature mentioned in Den Besten and Moed-van Walraven (1986) as well as section 4.4.3.2. of Holmberg (1986). Diesing acknowledges that given the evidence a double CP analysis for embedded V2 may be well-motivated for Mainland Scandinavian and other languages.

Therefore the point at issue is not whether embedded V-to-COMP creates islands but whether embedded V2 in Yiddish is a case of V-to-COMP or V-to-INFL. If we have to choose for V-to-INFL and for a

Spec,IP with A'-properties (in spite of all the stipulations required), this has interesting consequences for Koopman's theory of Verb Movement rules, which I argue against in my paper. In Koopman's view V-to-COMP and V-to-INFL (with COMP being a special case of INFL in the case of V-to-COMP) is motivated by directionality of Case-assignment (Koopman 1984). Although Diesing does not say so, Koopman's theory is confirmed (or at least cannot be rejected) by Diesing's analysis of Yiddish. Since Yiddish is SVO we may expect that Case-assignment by the verb is from left to right. If the Subject starts out in the Spec,VP position as Diesing assumes, INFL can assign Nominative to that position provided a verb moves to INFL. That is to say: INFL can assign Nominative from left to right too. An A'-Movement rule can then optionally move this Nominative NP into the Spec,IP position. Since according to Diesing there is no V-to-COMP in Yiddish main clauses, we do not have to worry about the motivation for such a second Verb Movement rule. Unfortunately things are not that clear-cut because Diesing argues for a residual case of V-to-COMP in embedded clauses. Consider the examples in (vi):

(vi) a. Vos hot er nit gevolt az [$_{IP}$ mir zoln leyenen]?
What has he not wanted that we should read

b. Vos hot er nit gevolt zoln [$_{IP}$ mir leyenen]?
What has he not wanted should we read
(Diesing's (49)a and b)

Diesing argues that in the case of (vi)b *zoln* has moved to COMP. (Similar cases of embedded V2 cum *Wh*-extraction can be found in German.) For the time being I would like to leave open the question of whether Koopman's theory of the NP-type of Verb Movement rules (Verb Movement motivated by considerations of Case assignment) can be salvaged in view of such an analysis. Nor do I want to go into the question of what Diesing's analysis of sentences such as (vi)b may mean for her own ideas about V2 in main clauses.

More important is the question of whether Diesing really has shown that embedded V2 with the subject following the finite verb must be analyzed as a case of V-to-INFL. According to Lowenstamm (1977) and Travis (1984) extraction out of such contexts is ungrammatical, which would be an argument for V-to-COMP. According to Diesing (to app.) however such extraction is grammatical (modulo some discourse considerations) so that embedded V2 must be V-to-INFL. Although I am in principle willing to believe Diesing, I am hesitant to do so since there is a couple of things in her presentation that make me suspicious. Since this is material for another paper, I will leave it at a list of short indications.

First of all, Diesing quotes a couple of sentences which according to Lowenstamm and Travis are ungrammatical and which according to her own analysis should be grammatical without giving the slightest indication of whether or not her own informants accept these examples. Secondly, until very late in her paper Diesing only quotes examples of interrogative *Wh*-extraction out of embedded V2 structures taken from Yiddish literature between 1913 and 1949, again without giving native judgements on these sentences. It may well be that some of these sentences represent a literary or a Germanizing style. We simply do not know. Thirdly, Diesing's sole counterexample against Lowenstamm's claim that embedded Topicalization cum V2 in Yiddish relative clauses necessitates the use of a resumptive pronoun cannot be trusted for reasons of surface phonology (or phonetics if you will). Consider this example:

(vii) Der yid vos shabes bay nakht vet Khayim zen
The man that Saturday at night will Chaim see

According to Lowenstamm's analysis *Khayim* should be followed by a resumptive pronoun *im* 'him'. Since both the weak pronoun *im* and the second syllable of *Khayim* are unstressed this may be a case of haplology. Therefore, the crucial question here is whether *im* can still be left out if a name like *Max* is substituted for *Khayim*.

So far for my critical remarks concerning Diesing's presentation of the facts. It may very well be that in the final analysis Yiddish differs less from the other Continental Germanic languages than Diesing wants us to believe. Nevertheless I feel there is reason to assume that Diesing has presented us with some data which may call for a partial revision of the idea that all cases of embedded V2 with the subject following the finite verb have to constitute islands. This may mean that we may have to critically reassess the analyses of embedded V2 in the other Germanic languages.

R3. *Verb (Projection) Raising*

At the outset of section 2.3. of the chapter under consideration Verb Raising and Verb Projection Raising are loosely referred to as cases of reanalysis. Traditionally Verb Raising is regarded as a movement rule extracting the verb out of a lower S or VP (cf. Evers (1975) and subsequent literature). Similarly Den Besten and Edmondson (1983) analyze Verb Projection Raising as movement (raising) of a V^n ($n \geqslant 1$) out of a lower clause or VP. However Haegeman and Van Riemsdijk (1986) have claimed that this analysis will not do for cases like (13)b (repeated as (i) below) and that an account of Verb Projection Raising in

terms of (real) reanalysis is called for:

(i) --, das mer em Hans händ es velo wele schänke
--, that we John have a bike want give

This chapter accepts their argument. Yet, as R2. to chapter 5. points out, alternative analyses have been proposed in the recent literature which obviate the problem for the movement analysis posed by examples like (i).

According to these alternative analyses taken to their extreme it is wrong to analyze Verb Raising and Verb Projection Raising as belonging to a general schema of V^n Raising (max. $\geqslant n \geqslant 0$). Verb Raising and Verb Projection Raising are supposed to be two separate (though related) phenomena. To be more specific, the recent literature (Den Besten and Rutten (1989: n. 8) and Vanden Wyngaerd (1989)) analyzes Verb Projection Raising as a case of Move XP (X being V according to Den Besten and Rutten (1989), and AGR according to Vanden Wyngaerd (1989)). All cases of seemingly intermediate verbal projections moving out of maximal verbal projections can be seen as involving one or more applications of the rule of Adjunction. (For literature on Adjunction, see R2. concerning chapter 5.)

This analysis provides an elegant solution for the problem posed by examples like (i) for the original movement analysis for Verb (Projection) Raising. (i) can now be seen as involving Verb Raising of *schänke*, XP Raising of *t es velo wele schänke* (or: *em Hans es velo wele schänke*) and Adjunction of *em Hans* to a projection dominating *händ*. If we abstract away from functional categories like INFL or AGR and T the following rough representation of the resultant structure can be given. In order for the reader to keep track of the various interdependencies, lower case characters are used to coindex the verbs with their respective maximal projections. Furthermore, *vp* and *v* indicate VP trace and verbal trace respectively:

(ii) das mer $[_{VP_c}$ em $Hans_1$ $[_{VP_c}$ vp_b $händ_c$ $[_{VP_b}$ $[_{VP_a}$ t_1 es velo $v_a]$ $wele_b$ $schänke_a]]]]$

(Cf. n. 8 of Den Besten and Rutten (1989) and section 2. of Vanden Wyngaerd (1989).)

It goes without saying that the discussion about the theory of Verb (Projection) Raising is by no means finished. However, note that this new version of an old movement analysis does not affect the main point of section 2.3. of the chapter under consideration, i.e. that Verb Projection Raising may make a finite verb 'travel' to the left, to a position immediately adjacent to the Subject phrase, without there being any application of (embedded) V-to-COMP.

PART 2

Studies on Passive and Ergative Constructions

(Chapters 4.-5. cum Remarks)

Chapter 4

A Case Filter for Passives*

1. Introduction

A confusing set of assumptions concerning the passive construction can be found in the recent literature. Putting minor issues aside, the discussion centers around the question of whether the (grammatical) subjectivalization of the (logical) object must be described in terms of a transformation Move NP or by means of an interpretation rule (cf. Bresnan 1978). Recently. Wasow (1977) has pointed out that one should distinguish adjectival passives such as those in (1) and verbal ones such as those in (2):

(1) a. The box is broken.
    b. Our products are untouched by human hands.
(2) a. The box has been broken by John.
    b. Our products were frequently touched by greedy visitors.

Wasow claims that the different properties of the pertinent constructions can be related to a difference in derivation, in that Move NP has been applied to the sentences in (2) but not to the sentences in (1).

A diagnostic for Move NP is its 'blindness', i.e. its incapability of differentiating NPs according to their functions. Thus Move NP in English may affect Direct Objects (see (3)a), Indirect Objects (see (3)b), Benefactives (see (3)c), and Subjects of embedded clauses (see (3)d):

(3) a. This novel was written by my sister.
    b. John was given a novel.
    c. John was helped by Bill.
    d. John is believed to be in jail.

*This paper is a fragment of a larger project on Passive and Case. A Seminar on Morphosyntactic Features at the Department for General Linguistics of the University of Amsterdam led by Henk van Riemsdijk has given the incentive to start this research.

To this we may add the example for idiom chunk passives (see (4)a) and pseudopassives (see (4)b):

(4) a. Advantage was taken of John.
b.1 John was taken advantage of.
b.2 The bed was slept in.

For ease of exposition, let us restrict this diagnostic to Indirect Object passives and Subject Raising passives. Application of this diagnostic to Dutch and German seems to yield a clear result. Generally speaking, there are no Indirect Object passives or Subject Raising passives. To take some examples from German, sentence (3)a can be easily transposed into German:

(5) Dieser Roman ist von meiner Schwester geschrieben worden.
This novel has by my sister written been

On the other hand, example (3)b, when transposed into German, yields an ungrammatical sentence:

(6) *Der Johann (nom.) wurde einen Roman (acc.) geschenkt.
John (subj.) was a novel (obj.) given

Such observations seem to indicate that there is no transformational passive in German (or Dutch). This was concluded for Dutch by Hoekstra and Moortgat (1979) and their assumptions carry over to German.

Similar conclusions for Old English were reached at by Ligthfoot (1979a and b). Old English was a language comparable to modern German: SOV base order, Verb Second, and morphological case marking. Thus we have on the one hand the SVO language (modern) English which seems to be utterly free as regards passivization and three SOV languages, Dutch, German and Old English, which are quite restricted in their usage of the passive construction. The conclusion that their passives are lexical whereas the English passive is transformational seems to be near. However, below I will show that not all Indirect Object passives or Subject Raising passives in Dutch and German (and Old English) are out. Furthermore, it should be taken into account that — despite the bewildering freedom for Move NP in English — the Direct Object of a double object construction in English may not be moved. Thus, alongside (3)b there is no Direct Object passive witness (7):[1]

1. Example (7) is out for most — if not all — speakers of American English. In the discussion after my talk in Pisa Richie Kayne pointed out that for him such sentences are grammatical if the IO does not get focal stress. But he admitted that even then (7)

(7) *This novel has been given John.

Therefore, in this paper I will try to give a unified account for the behavior of the verbal passive in English, Dutch, and German (and Old English). I will assume that Move NP is applied in each of these languages. It will be shown that the differences between English on the one hand and the other languages on the other hand can be accounted for by means of one filter on NP traces. The filter will be embedded in a theory of Case which is derived from, but also partly deviates from, a theory of Case recently proposed by Chomsky (1980). It will be claimed that what in Chomsky (1980) is called Oblique Case plays an important role in Language. The distribution of Oblique Case depends partly upon idiosyncratic properties of the languages under discussion partly upon their respective base orders. It will be claimed that the opposition SVO vs. SOV plays an important role in the assignment of Oblique Case. This way an alternative is proposed for the hypothesis put forward by Lightfoot (1979a and b) to the effect that it is impossible for SOV languages to apply Move NP — which would force such languages to choose the lexical passive. Unfortunately the theory of Case proposed in this paper, by deviating from Chomsky (1980), also deviates from the theory proposed by Chomsky at the GLOW Colloquium in Pisa, especially in that I will assume that NP traces may bear Case (whereas *wh*-traces must bear Case). However, it has to be this way because I want to express in a generative frame-work the traditional insight among students of Germanic languages as well as among grammarians of older phases of English that Oblique Case is immune from passivization.

The paper will be organized as follows: Section 2 will give an overview of the passive constructions in Dutch and German. Section 3 will deal with some theoretical approaches concerning the passive — which will lead to section 4 which deals with my assumptions concerning Move NP, the passive participle, pseudopassives, and Case assignment. Section 5 will present some data on Case (and the passive) in the syntax of German (and Dutch). This will lead to section 6. In that section a theory of Case assignment will be proposed which is an elaboration of the model presented in Chomsky (1980). It will be shown that a surface condition on oblique traces makes the right predictions for a set of German passives that had been left out of consideration up to then, and that it makes

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has a literary flavor.

I think that sentences with (cliticized) Indirect Objects are best. Compare:

(i) This novel has been given him by his sister.

partly correct predictions for English. On the basis of the data from English the above-mentioned surface condition will be changed into a surface filter. Since this filter makes crucial use of the assumption that NP traces differ from *wh*-traces, a formal system will be proposed to differentiate the two sets of traces: the two sets of traces must be formally distinct, which is in accordance with current approaches in Trace Theory. Section 7 finally will discuss Case assignment and markedness. It will be shown how a theory of markedness may account for the history of the passive construction in German and Dutch and especially for the history of the passive construction in English. The theory put forward in this study is meant to be an alternative to the theory set forth in Lightfoot (1979a and b) in so far as the passive is concerned.

2. An overview of the passive in Dutch and German

I will assume without further discussion, following Koster (1975a), that Dutch and German are SOV underlyingly. In root sentences the rule of Verb Second (more appropriately: Verb Preposing) applies, putting the finite verb (main verb or auxiliary) in first or second position. Both languages have morphological case. However, whereas German distinguishes four morphological cases (nominative, genitive, dative, and accusative) and marks any NP, whether pronominal or not, with a case, Dutch is like English in that only personal pronouns are marked for Case, the morphological cases being nominative and non-nominative.

Some additional remarks are in place. First, the case distinctions of German are not always visible. Thus, the morphological marking for the nominative-accusative distinction shows up only with masculine heads (*der Mann* (nom.) vs. *den Mann* (acc.) "the man', or *ein Mann* (nom.) vs. *einen Mann* (acc.) 'a man'), and what is more this happens only in the singular. On the other hand, the genitive-dative distinction is blurred for the feminine singular (*der Frau* (gen./dat.) 'the woman') but it does show up elsewhere. Second, from traditional grammars one may get the impression that Dutch makes a three-way distinction (nom. vs. dat. vs. acc.) because of the normative paradigm for the third person plural — which is the sole paradigm of that kind:

(8) *zij* — as a Subject (nom.)
hun— as an Indirect Object (dat.)
hen— as a Direct Object and as Object of a preposition (acc.)

However, it is extremely doubtful whether there are people who make these distinctions in their spoken language, although many (but not all) may try to stick to the norms in writing and in formal speech. In everyday

Dutch the normal non-nominative third person plural pronoun is *ze*, a usage that is gradually creeping into the written language together with other weak pronouns. Only under contrastive stress will ***hen*** and ***hun*** show up, but then they are used indiscriminately. Third, although some try to retain the postnominal (nonpronominal) genitive in written Dutch, only the prenominal *s*-genitive is still in use (compare (9)).

(9) Camperts gedichten
Campert's poems

However, this is a positionally as well as syntactically restricted usage of case and it cannot be compared to the usage of the morphological genitive in German which shows up postnominally and with certain verbs and prepositions (compare section 5).

After this introduction on some relevant structural properties of Dutch and German, let us now turn to the syntactic and morphological properties of the passive constructions in these languages. As an introduction let me state that both languages possess two passives, corresponding to the two passives of English as distinguished by Wasow (1977).

The passive corresponding to the transformational passive in English is formed by means of the passive auxiliary *worden* in Dutch and *werden* in German. These auxiliaries are morphologically equivalent (except for one form in German) to the copulas *worden* and *werden* respectively (both: 'become'). The main verbs modified by *worden/werden* show up as past participles. The Direct Object (and — as we will see in section 4.1. and 6 — some Indirect Objects) shows up as the Subject of the passive construction. Some examples can be found in (10), where D denotes Dutch and G German:

(10) a. G Er wurde verhaftet.
D Hij werd gearresteerd.
He was arrested
b. G Sie ist gestern inhaftiert worden.
D Zij is gisteren gearresteerd.
She has yesterday arrested (been)

As can be seen in the above examples, the past participle of the auxiliary *werden* in German is *worden*. This is an exceptional form, since the participial prefix *ge-* should be prefixed to it, as is the case with the past participle of the copula *werden*, witness (11):

(11) Er ist größer geworden.
He has taller become

Example (10)b also shows that there is something peculiar about the

Dutch passive in that the past participle of *worden*, i.e. *geworden*, is absent. One may hear examples such as (12) once in a while but usually they are objected against:

(12) Zij is gisteren gearresteerd geworden.
She has yesterday arrested been

I will not take a stand as to whether the absence of *geworden* is a matter of base-generation or lexical deletion.[2]

The absence of *geworden* in the perfect of the passive in Dutch in connection with the absence of Indirect Object passives in Dutch and German looks like a powerfull argument in favor of base-generating passives in these languages. However, the statal reading which must be related to the base-generated passive in English (compare Wasow (1977)) is absent with the German-Dutch *werden/worden*-passive. Passives such as in (10) and (12) require the dynamic reading which in English is attributed to the transformational passives (Wasow 1977).[3] Furthermore, it can be shown that at least in Dutch the passive past participle of the *worden*-passive is verbal and not adjectival — which corresponds to the fact that *worden*-passives require a dynamic reading (compare section 4.2). And finally, Indirect Object passives in Dutch and German are not completely absent (compare section 4.1), or to put it differently: such passives are sporadically present. These considerations, some of which will be elaborated upon in section 4, show that a transformational derivation for the German-Dutch *werden/worden*-passive is not counter-intuitive. Evidently, such an approach calls for an explanation for the paucity of Indirect Object passives and the like in Dutch and German. A proposal to that end will be made in section 6.

The passive that — in Dutch and German — corresponds to the lexical passive in English is formed by means of the copula *zijn* in Dutch and *sein* in German. Some examples are:

(13) a.D Dit zwembad is gesloten.
This swimming pool is closed
b.G Das Museum ist ab heute geschlossen.
The museum is from today closed
(14) D Dit zwembad is nog nooit gesloten geweest.
This swimming pool has yet never closed been

2. Nor do Hoekstra and Moortgat (1979). The virtual absence of *geworden* may be related to the properties of Verb Raising in Dutch. (Compare section 4.2).

3. Compare the Duden Grammatik (1973), Höhle (1978), Kraak and Klooster (1968), Hoekstra and Moortgat (1979).

The ambiguity which may exist in the English glossing of (14) does not exist in Dutch. Example (14) is a statal passive with a participial adjective *gesloten* 'closed' and the past participle of the copula *zijn* 'to be'. On the other hand example (13)a is ambiguous in Dutch. It is either a statal *zijn*-passive or the perfect of a *worden*-passive with its dynamic reading. (13)a can be disambiguated by adding an agent phrase. In that case (13)a looses its statal reading (see (15)a). Similarly, addition of an agent phrase to a sentence such as (13)b in German requires the simultaneous addition of *worden* (see (15)b):

(15) a.D Dit zwembad is door de gemeente gesloten.
This swimming pool has by the municipality been-closed
b.G Das Museum ist von den Behörden geschlossen worden.
The museum has by the authorities closed been

There seems to be little reason not to derive the German-Dutch *sein/zijn*-passives with their statal reading by means of a lexical rule — which is comparable to the lexical derivation of the English adjectival *be*-passive (Wasow 1977). In section 4.2. it will be shown that the passive participle of the Dutch *zijn*-passive is a deverbal adjective —which most probably is also true for the passive participle in the German *sein*-passive. The statal meaning of these passives can be easily derived from the adjectival status of the pertinent participles.

Except for what will be said in section 4.2 the *sein/zijn*-passives will not be analyzed any further. This paper will concentrate upon the analysis of the dynamic *werden/worden*-passives, starting from the assumption that the pertinent participles are verbs (section 4.2). On the basis of the data in section 4.1 — which deals with the subjectivalization of non-Indirect Objects in Dutch and German — a transformational analysis for these *werden/worden*-passives will be proposed.

Finally, in order to prepare the ground for section 5, something must be said about the impersonal passive in Dutch and German. The impersonal passive is a special — but maybe not so special — variant of the dynamic *werden/worden*-passive and it shares the dynamic reading with the latter construction. Whenever a verb may be passivized without there being a passivizable object, the impersonal passive is used. Thus in Dutch and German we have to distinguish between passivizable verbs and passivizable objects. An object may be passivized only if the corresponding verb is passivizable. In English the situation is different. There an NP may be passivized if and only if the pertinent verb is passivizable.

Now consider the following examples:

(16) a.D Er werd gelachen.
There was laughed
b.G Es darf nicht mehr gearbeitet werden.
There may not anymore worked be
(17) a.D Er is over je voorstel gesproken.
There has about your proposal been-talked
'Your proposal has been talked about'.
b.G Es wurde mit dem Feind verhandelt.
There was with the enemy negotiated

As can be seen, the Dutch impersonal passive requires the subject filler *er*. This formative is presumably the same as the *er*-formative of Dutch existential sentences (compare (18)). Its German counterpart is *es* (compare (19)).

(18) a.D Er staat een eenhoorn op het plein.
There stands a unicorn at the square
b.D Er is hem wat ingefluisterd.
There has him something been-suggested
(19) a.G Es steht ein Kobold im Garten.
There stands a gnome in-the garden
b.G Es ist dem Museum eine alte Urne geschenkt worden.
There has the museum an old urn given been

Little needs to said about Dutch *er*. German *es*, though, is somewhat more complicated. First, note that existential/impersonal *es* is homophonous with the definite pronoun *es* 'it'. Second, whereas Dutch *er* deletes only under very restricted conditions (compare (20)), German impersonal/existential *es* simply deletes if it is not in sentence-initial position in declarative sentences (compare (21)). The homophonous definite pronoun *es*, however, does not delete — which means that there is a syntactic diagnostic to keep the two *es*ses apart (compare example (22)):

(20) a.D Vanaf morgen word *(er) niet meer gewerkt.
From tomorrow is *(there) not anymore worked
b.D Toch werd *(er) gelachen.
Still was *(there) laughed
c.D In dit stadion wordt (?er) gevoetbald.
In this stadium is (?there) played-soccer
(21) a.G Ab morgen wird (*es) nicht mehr gearbeitet.
From tomorrow is (*there) not anymore worked
b.G Dennoch wurde (*es) gespart.
Still was (*there) saved

c.G Er sagte, daß (*es) mit dem Feind verhandelt
He said that (*there) with the enemy negotiated
werden würde.
be would

(22) a.G Er sagte, daß *(es) gefallen war.
He said that *(it) fallen-down had

b.G Ab morgen ist *(es) geschlossen.
From tomorrow is *(it) closed

As for the impersonal construction as such, it is intimately related to the usual (personal) *werden/worden*-passive. This can best be explained by first considering the English verbal passive. In English an NP is passivized if and only if the agent subject phrase is ousted from the subject position. We know that an NP may be passivized if and only if the corresponding verb is passivized. Therefore, a verb is passivized if and only if the agent subject phrase is ousted (if present). The latter condition also holds for the German-Dutch *werden/worden*-passives. However, not only does it hold for the personal passive, it holds for the impersonal passive as well. Therefore, this seems to be the central requirement for passive constructions. This requirement is complemented by a second one to the effect that — in Dutch and German — a passivizable object (usually a Direct Object) must be passivized if the corresponding verb is passivized. The same condition applies to English, but that language has narrowed the constraints on the verbal passive in that it requires that there be a passivizable NP if a verb is passivized.

Thus English on the one hand and German and Dutch on the other differ only minimally in so far as the passive is concerned. They all require that the agent subject phrase be ousted from the subject position — provided it is present at all — and, second, that a passivizable object — if present — be passivized if the corresponding verb is passivized. English differs from Dutch and German in that it requires the presence of a passivizable NP in order to be able to passivize a verb. Which state of affairs is more marked I cannot tell. It is quite possible that English represents the unmarked case. Nevertheless, not only in Dutch and German but also in English there are unpassivizable NPs, witness (7) above. Therefore, the question of which NPs are passivizable and which are not is an independent issue and section 5 and section 6 will be devoted to a definition of the notion of 'passivizable NP'.[4]

The two sections preceding them will be devoted to a survey of current approaches to the passive construction (section 3) and to an exposition of my own position (section 4).

4. For literature on the impersonal passive see Kirsner (1976a and b).

3. Theoretical approaches to the passive

Disregarding work being done in the relational frame-work one can distinguish two major trends in the generativist approach of passive constructions. There is a completely lexicalist approach and a mixed lexical-transformational approach which nevertheless may lead one to analyze all passive constructions of one language as being lexical in nature. Recently a new dimension has been added to the discussion by the development of a theory of Case.

The lexical approach is defended in Freidin (1975) who analyzes all passive past participles as adjectives and by Bresnan (1978) who analyzes passive past participles as verbs. In the field of German syntax Höhle (1978) must be mentioned whose book deals with a variety of passive and passive-like constructions. In his 'Rückblick' Höhle explicity states that he is not convinced by Wasow's study (1977) in that he does not believe that Wasow's transformational passive cannot be derived by lexical rules. This does not come as a surprise if one considers that Höhle allows lexical rules to define Subject Raising passives and passives on idioms.

Although I do not object against deriving all passives by means of interpretative or lexical rules I prefer Wasow's approach at this moment since it makes a sharp division between two types of passives that differ both syntactically and semantically. To give these constructions a name we will call the passives that are blind for the function of the NP they prepose verbal or transformational (compare (24)) and those that are not blind for functions adjectival or lexical (compare (23)):

(23) a. The box is broken. (=(1a))
b. Our products are untouched by human hands. (=(1b))

(24) a. The box has been broken by John. (=(2a))
b. John was given a car.
c. John is believed to be the best football player in town.

Other properties that matter are the dynamic reading that can frequently be attributed to the transformational passives (compare (24)) and the statal reading which must be attributed to the lexical passives (compare (23)). Among the adjectival positions where transformational passive past participles may not occur Wasow mentions the prenominal adjectival position where according to him only adjectival past participles may appear (compare (25)):

(25) a. The broken box.
b. The painted box.

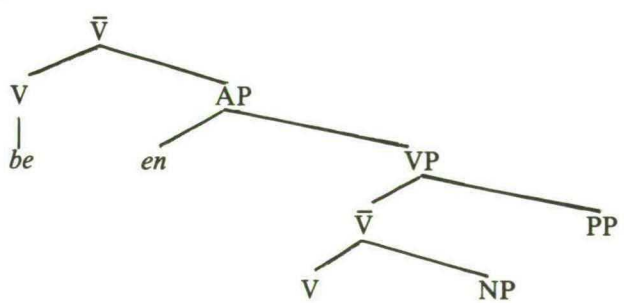
In section 4.2 it will be shown that this diagnostic makes less sense than

one might think on account of the behavior or prenominal participle constructions in Dutch and German.

Directly related to Wasow (1977) are Lightfoot (1979a and b). In these studies Lightfoot claims that Old English, being an SOV language, could not have had a transformational passive on account of the fact that a rule like Move NP would violate a constraint suggested in Chomsky (1973) to the effect that no transformation may change structure without re-ordering elements. This argument carries over to the analysis of Dutch and German, which languages are also SOV in the base. Lightfoot shows that this theoretical approach predicts the absence of Indirect Object passives and Subject Raising passives and the like, although he does not apply Wasow's diagnostic without a critical attitude. Arguing more or less on the same line are Hoekstra and Moortgat (1979). Although they want to distinguish an adjectival *zijn*-passive from a verbal *worden*-passive in the syntax of Dutch, they argue that nevertheless the verbal passive with *worden* must be analyzed as a lexical construction in view of the fact that the *worden*-passive is not blind in its application. In section 4.1 below I will challenge the assumptions underlying the position taken by Lightfoot and Hoekstra and Moortgat. First of all, I do not think that the constraint suggested by Chomsky (1973) is strong enough to defend Lightfoot's position (1979a and b). And in the second place I will show that observationally there is something wrong about the statement that the verbal passive in Dutch and German does not operate blindly. For similar remarks on Old English I refer to section 7.

Lately new elements have been added to the discussion. After the introduction of the theory of Case in 'On Binding' (Chomsky 1980), Rouveret and Vergnaud (1980) and May (1979) have further elaborated some ideas that can be found in Chomsky's paper. In order to follow the discussion in chronological order, let us start with Rouveret and Vergnaud (1980). In Appendix A of that paper the passive VP of English is analyzed as follows:

(26)



It is claimed that the passive past participle that results from the adjunction of *en* to V cannot assign Case to the object NP unless a higher verb such as *be* would be able to do that — indirectly, via the affix *en*. However, *be* is believed to be one of the few verbs that do not assign Case.[5] Consequently an object in a passive construction will be without Case. This conflicts with a natural assumption concerning Case to the effect that every lexical NP must be Case-marked. Therefore, the application of Move NP to such Case-less NPs will be obligatory, leaving behind an NP trace that will not be marked with Case — a situation that is allowed because only lexical NPs must bear Case. The assumption that past participles (whether in active or in passive constructions) cannot assign Case is made explicit in section 1.6 of the same paper. There Rouveret and Vergnaud state that they assume that the rule of Affix Hopping which adjoins *en* to the main verb assigns V+*en* to the category [+V], deleting [-N] from the Verbal form [+V, -N]. Thus past participles will not fall within the class of Case-assigners which comprises Tense, [+WH], [-WH] and [-N]. I do Rouveret and Vergnaud injustice by quoting only fragments from their fairly elaborated and complicated paper but this is all I need for further discussion.[6]

Similar ideas to those expressed in Rouveret and Vergnaud (1980) can be found in May (1979). May proposes to analyze passive past participles as adjectives, following Chomsky (1975), Freidin (1975), and Fiengo (1974).[7] Assuming Chomsky's (1980) set of case-governors, e.g. verbs, prepositions, and Tense, May concludes that passive past participles cannot assign Case and therefore require the obligatory movement of the object NP (or infinitival subject) into subject position where it can receive Case. The structure of the argument is evidently the same as the argument in Rouveret and Vergnaud (1980).

Although the idea of there being governors that do not, or do not always, assign Case has a certain appeal, I do not think that May's idea is in accordance with the facts of Dutch and German, since adjectives do assign Case in those languages. There are also some difficulties with the

5. This seems to imply that in sentences such as

(i) John is not a hero.

a hero has acquired Case via an independent device. But if so, why does this rule not apply in passive constructions?

6. See also Vergnaud (1979) for further elaboration of the ideas of Rouveret and Vergnaud (1980).

7. May quotes prenominal participles as evidence for the adjectival status of passive past participles without taking into account the distinctions made by Wasow (1977). Also see section 4.2 of this paper.

Rouveret and Vergnaud proposal. These problems will be dealt with in section 4.2. Furthermore, the theory of Case I will propose in section 6 will be partly at variance with ideas expressed in Chomsky (1980), Rouveret and Vergnaud (1980), and May (1979) in that I will allow nonvariable empty NPs to bear Case. The reasons for this heterodox approach will become clear in the course of this paper.[8]

This suffices as an overview of current approaches to the passive and it will serve as a background for the following section where I will expose the theoretical assumptions I want to make. This section will deal with Move NP in SOV languages (section 4.1), against the background of Wasow (1977), Lightfoot (1979a and b), and Hoekstra and Moortgat (1979); the status of the passive past participle in German and Dutch (section 4.2), against the background of Wasow (1977), Rouveret and Vergnaud (1980), and May (1979); the status of pseudopassives (section 4.3), against the background of Wasow (1977), Chomsky (1980), and Lightfoot (1979a and b); and Chomsky's ideas concerning Case-marking in Chomsky (1980) (section 4.4).

4. Theoretical assumptions

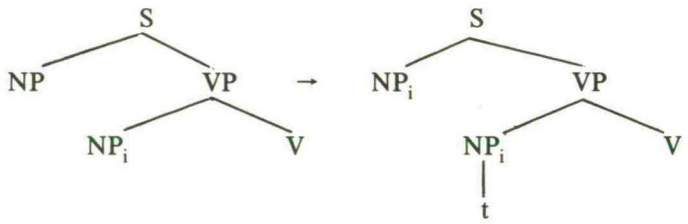
4.1. Move NP in SOV languages

There seem to me to be two approaches to tackle the question of whether SOV languages (Dutch, German, Old English, but also Latin) have a transformational passive, i.e. whether Move NP has been applied to their passive constructions. There is a theoretical approach — which wants to decide the matter by taking a principled stand on the problem of possible transformational rules (Lightfoot 1979a and b) — and there is a diagnostic approach — which makes certain assumptions concerning the generative properties of transformational and lexical rules and applies these assumptions as a diagnostic tool to decide the matter (Lightfoot (1979a and b) and Hoekstra and Moortgat (1979)). These approaches will be dealt with in the order mentioned.

In four consecutive studies Lightfoot has expressed his belief that there cannot be a rule of Move NP in SOV languages, which rule would convert (27)a into (27)b (Lightfoot 1977a, 1977b, 1979a, 1979b):

8. It is also at variance with the ideas put forward by Chomsky at the Pisa Colloquium as well as in the Workshop afterwards.

(27) a. b.



A short reference is made to Keenan (1975) — who, by the way, only claims that OV languages do not move the logical Direct Object if the position of the Direct Object is the same as the subject position of the intransitive Subject, which seems to me hard to decide — but then it is stated that it is reasonable to assume a constraint to the effect that no rule can change structure without reordering — which, at first sight, seems to exclude the operation performed upon (27)a. The relevant references are Chomsky (1973, 254) and Lightfoot (1976).[9] The pertinent passage in Chomsky (1973) — omitting references and footnote — reads as follows:

> One might then raise the question whether cyclic transformations should not be constrained so as to forbid operations that never change the terminal string of a phrase marker but only its structure, as in the original formulations of subject raising to object position (...). Perhaps all such operations can be restricted to the readjustment rule component of the grammar, which relates syntax and phonology (...). There is no reason to suppose that such rules of regrouping will receive a natural formulation within the theory of grammatical transformations. One might expect such regrouping to apply most regularly to form words from syntactically separate items, and it may be that some languages (Japanese is a case that comes to mind) make much greater use of regrouping rules than of transformations in a stricter sense. (Chomsky 1973, 254).

Lightfoot (1976) deals extensively with the suggestions that can be found in this passage and the accompanying footnote 33 (Chomsky 1973, 254).

9. The reference to Lightfoot (1976) is somewhat curious. Although Lightfoot states in that paper that Subject-to-Object Raising is a somewhat unusual rule, he defends the idea that trace theory can obviate the condition on transformations proposed by Chomsky (1973, 254). Furthermore he believes that the restriction of such local rules to morphological restructuring rules is not (yet?) motivated (p. 283). His reference to *Have/Be* Raising is somewhat unfortunate since this rule may reorder constituents:

(i) a. He does not be$_i$ ill ⇒
b. He is$_i$ not e$_i$ ill

Restricting our attention to grammatical transformations we can see that Chomsky suggests to constrain cyclic transformations «so as to forbid operations that never change the terminal string of a phrase marker but only its structure». Although there are reasons to doubt the validity of this constraint (see Evers 1975 and also Lightfoot 1976, fn. 4 and p. 283), let us accept this suggestion as a working hypothesis. The question then must be: Does Move NP always perform a structure-changing operation without simultaneously reordering the terminal string, when the rule is applied to SOV structures? Of course the answer is no.

In Dutch and German the space between the Subject and the Direct Object can be filled with all sorts of syntactic constituents. Thus Move NP if applied may move a Direct Object NP across a sequence of one or more adverbials. Or, to take a simple example, The Direct Object may cross the Indirect Object:

(28) a.D --, dat de Stichting het Museum deze oude vaas
--, that the Foundation to-the Museum this old vase
geschonken heeft
donated has

b.D --, dat deze oude vaas het Museum door de Stichting
--, that this old vase to-the Museum by the Foundation
geschonken is
been-donated has

A potential counterargument is that (28)c is a grammatical passive as well:

(28) c.D --, dat het Museum deze oude vaas door de Stichting
--, that to-the Museum this old vase by the Foundation
geschonken is
been-donated has

One might argue on the basis of this observation that (28)c is the regular passive corresponding to (28)a — which implies that there has been no Object Movement — and that (28)b must be generated by a local permutation rule. However, I would like to point out that the same phenomenon can be observed in active sentences containing an intransitive verb, an Indirect Object and a Subject that is the Theme of the sentence. These sentences have been dealt with in Koster (1978, 3.2.2.3):

(29) a.D Ik denk, dat die boeken hem wel zullen bevallen.
I think that those books him surely will please

b.D Ik denk, dat hem die boeken wel zullen bevallen.
I think that him those books surely will please

Thus, if one were to claim that the passive sentence (28)c is more basic than the corresponding (28)b, one would be forced to claim that the (nominative) Subject in (29) — which agrees with the finite form *zullen* —is generated in Direct Object position but this seems to me to be too radical a position to defend.

A final observation showing that Move NP can reorder the terminal string in SOV languages pertains to the pronoun cluster in Dutch. Object pronouns in Dutch happen to cluster immediately to the right of the Subject phrase without cliticizing onto the Subject (compare Van Riemsdijk 1978 and Koster 1978). We will restrict out attention to R-pronouns, prepositional objects that may leave their respective PPs. A description of their behaviour can be found in Van Riemsdijk (1978). Now consider the following triplets:

(30) a. --, dat men er_i mijn broer niet [$_{PP}$ e_i van] kon overtuigen
--, that one it_i my brother not e_i of could convince

b. --, dat mijn broer er_i niet [$_{PP}$ e_i van] overtuigd kon worden
--, that my brother it_i not e_i of convinced could be

c. *--, dat er_i mijn broer niet [$_{PP}$ e_i van] overtuigd kon worden

(31) a. --, dat ze er_i best de kamer [$_{PP}$ e_i mee] kunnen
--, that they it_i quite possibly the room e_i with may
hebben schoongemaakt
have cleaned

b. --, dat de kamer er_i best [$_{PP}$ e_i mee] kan zijn
--, that the room it_i quite possibly e_i with may have
schoongemaakt
been-cleaned

c. *--, dat er_i de kamer best [$_{PP}$ e_i mee] kan zijn schoongemaakt

Thus there is good evidence that Move NP can reorder the terminal string in SOV passives. Therefore, I do not think that Lightfoot's theoretical objection against Move NP in SOV languages can be upheld. Still the diagnostic approach that is based upon Wasow (1977) may show that there is no application of Move NP in SOV languages such as Dutch and German. Unfortunately, the diagnostic approach is weak in that it can only suggest, and never prove, that Move NP has not been applied in the derivation of the Dutch and German *worden/werden*-passive. For example, suppose that the diagnostic approach would not be able to provide us with any example of an Indirect Object passive or a Subject Raising passive in Dutch and German. Even then, it would be possible to device auxiliary hypotheses to explain why such passives are excluded while clinging to the idea that the dynamic *worden/werden*-passive in Dutch and German is derived the same way the verbal passive in English

is. Let us now see what the diagnostic approach can show us.

In their study on Dutch passive and passive-like constructions Hoekstra and Moortgat (1979) apply Wasow's diagnostic and they come to the conclusion that the Dutch *worden*-passive cannot possibly be a transformationally derived construction on account of the absence of Indirect Object passives and Subject Raising passives in Dutch. This contention may cover nearly all the facts but it does not cover all of them. And as we will see below, the same applies to German.

Let us first put up a list of examples typical for a transformational passive, following Wasow (1977) and Lightfoot (1979a and b):

(32) a. Much attention was paid to John's latest novel.
b. John was helped.
c. John was sent a flower.
d. John is believed to be the villain.
e.1 John was made advantage of.
e.2 This bed was slept in by general Haig.

Discussion of pseudopassives (compare (32)e) will be postponed till section 4.3.

I will now go through the examples one by one and apply the diagnostic to Dutch and German.

First, idiom (chunk) passives. According to Wasow (1977) the NP *(much) attention* in (33) is not a Direct Object, because it does not bear any grammatical relation at all:

(33) The critics paid (much) attention to John's latest novel.

I do not think that there is any reason not to believe that *(much) attention* is a Direct Object. Anyway, suppose it is not. Lightfoot (1979a and b) claims that passives such as (32)a are hard to find in Old and Middle English, which can be made to follow from the assumption that *much attention* is not an underlying Direct Object while OE and ME did not yet have a transformational passive. I do not know what to make of this claim especially because apparently such idiom passives are not totally absent in OE or ME. Also in Dutch and German it is possible to find passives on idioms. Consider the following Dutch examples:

(34) a. Aandacht zal worden besteed aan de laatste roman van
Attention will be paid to the latest novel by
Maarten 't Hart.
Maarten 't Hart
b. Er zal aandacht worden besteed aan de laatste roman
There will attention be paid to the latest novel
van Maarten 't Hart.
by Maarten 't Hart

What makes constructions such as (32)a and (34)a so cumbersome is the fact that unspecific indefinite NPs are generally not preferred in a foregrounded position. That is why Dutch prefers (34)b over (34)a. The same applies to German where one may perceive — more clearly than in Dutch — that such idiomatic NPs become subjects:

(35) a. Er machte keinen Hehl (acc.) daraus, daß er nicht
He made no secret it-out of that he not
einverstanden war.
agreed

b. Es wurde von ihm kein Hehl (nom.) daraus gemacht, daß
There was by him no secret it-out of made that
er nicht einverstanden war.
he not agreed

In Dutch one may point out the idiom *iemand de levieten lezen* 'to read someone the levites' = 'to read someone a lecture' which requires a plural finite form in the passive, agreeing with *de levieten*:

(36) a. Men heeft Jan (sing.) de levieten (plur.) gelezen.
One has John the levites read

b. Jan (sing.) werden (plur.) de levieten (plur.) gelezen.
John was the levites read

The same expression exists in German and it is quoted in Höhle (1978) who also provides us with other examples such as *einem den Garaus machen* 'to make the totally-out (?) to somebody' = 'to kill someone'. The word *Garaus* is used only on this expression and the accusative *den Garaus* must turn nominative in a passive construction:

(37) a. Karl machte ihm (dat. sing.) den Garaus (acc.)
Charles made to-him the totally-out
(Höhle 1978, 7)

b. Ihm (dat.) wurde von Karl der Garaus (nom.) gemacht.
To-him was by Charles the totally-out made

I do not want to conclude from the above examples that the German-Dutch *werden/worden*-passive is transformational. It is conceivable to regard *(much) attention* in (32)a and (33), *aandacht* in (34), *kein Hehl* in (35), *de levieten* in (36), and *der Garaus* in (37) as underlying Direct Objects. Under such a presumption a lexical rule can deal with the facts. Therefore, our diagnostic for Move NP has been reduced to three relevant constructions (e.g. (32)b, c and d) — or four, if we take (32)e into consideration. But I do not think that the latter construction can tell us anything about Move NP (compare section 4.3).

Thus, the first reasonable diagnostic will be the Benefactive Object

passive. It is noted in Wasow (1977) that in several Indo-European languages, including German, the object of verbs such as *help* and *thank* in English require the dative, the case of the Indirect Object. And in fact the nominalizations of the pertinent verbs in English still require the preposition *to* as the object-introducer:

(38) a. ?Our help *to* the hostess.
b. *Our help *of* the hostess.

Turning now to German, we can see that the German equivalent of (32)b is ungrammatical:

(39) *Der Johann (nom.) wurde geholfen.
John (subj.) was helped.

However, in spite of the fact that the Dutch translations of (38)a and b show the same pattern of grammaticality judgements (see (40)), the object of *helpen* 'to help' may become a passive subject (see (41)):

(40) a. Onze hulp *aan* de gastvrouw.
Our help to the hostess.
b. *Onze hulp *van* de gastvrouw.
Our help of the hostess.

(41) a. Jan (sing.) werd (sing.) geholpen.
John was helped
b. Wij (plur). werden (plur.) geholpen.
We were helped.

Thus the Benefactive Object diagnostic yields contradictory results.

Something similar can be said about the Indirect Object diagnostic. It is true, generally speaking, that Indirect Objects in Dutch an German may not be passivized (compare Hoekstra and Moortgat 1979). Consider the following examples:

(42) a.D Jan (sing.) werd (sing.) een bloem (sing.) toegestuurd.
John was a flower sent
b.D Ons (nonnom.) werd (sing.) een bloem (sing.) toegestuurd.
To-us was a flower sent
c.D*Wij (nom. plur.) werden (plur.) een bloem (sing.) toegestuurd.
We were a flower sent

(43) a.G*Der Johann (nom.) wurde eine Blume geschickt.
John (subj.) was a flower sent
b.G Es wurde dem Johann (dat.) eine Blume geschickt.
There was to-John a flower sent

Many more examples could be provided, since this is the general pattern for passivization. However, there are Indirect Object passives both in

Dutch and in German. In Dutch there is exactly one exception to the rule (unless one wants to take into account the example with *opendoen* in section 5 below) and one cannot blame Hoekstra and Moortgat (1979) for not having considered it. Nevertheless, the exception is well-established in spite of vehement normative opposition. Consider the following examples:

(44) a. Er werd ons verzocht om weg te gaan.
There was to-us requested for to leave
b. Wij werden verzocht om weg te gaan
We were requested for to leave

That *wij* in (44)b is an Indirect Object underlyingly can be shown by the variant option of not nominativizing *ons* in (44)a. One may blame this on the presence of a sentential object in (44). This certainly has something to do with it, because the passive of (45)a below does not allow the Indirect Object to be passivized:

(45) a. Men heeft het hem verzocht.
One has it from-him requested
b. Het is hem verzocht.
It has from-him been-requested
c. *Hij is het verzocht.
He has it been-requested

Nevertheless, this explanation does not suffice in that other passives corresponding to (44)b are out with the possible exception of (46)b:

(46) a. Men heeft ons gevraagd om een lezing te geven.
One has us asked for a lecture to give
b. ??Wij zijn gevraagd om een lezing te geven.
We have been asked for a lecture to give
c. Er is ons gevraagd om een lezing te geven.
There has us been-asked for a lecture to give
(47) a. Men heeft hem verboden om daarheen te gaan.
One has him forbidden for there-to to go
b. *Hij is verboden om daarheen te gaan.
He has been forbidden for there-to to go
c. Er is hem verboden om daarheen te gaan.
There has him been-forbidden for there-to to go

In German the situation is even clearer than in Dutch because one can put up a whole array of Indirect Object passives which clearly conflict with the general tendency not to nominativize Indirect Objects. Thus, consider the following examples:[10]

10. In this context it is interesting to read in De Vooys (1960, 333) that in some

(48) a. Ich bin Deutsch gelehrt worden.
I have German taught been
b. Ich bin beauftragt worden, die Sachen abzuholen.
I have ordered been the stuff to get
c. Er ist die Vokabeln abgefragt worden.
He has the words heard been
d. Er wurde das Gedicht abgehört.
He was the poem heard

These examples will be more extensively dealt with in section 6. and section 7. It will be clear that also the Indirect Object diagnostic does not yield the right results.

Thus we are left with one final diagnostic, the Subject Raising diagnostic (compare (32)d). It will not come as a surprise that Dutch and German do know Subject Raising passives.

As an introduction let me state that the number of verbs in Dutch and German allowing lexical subjects in their infinitival objects is quite limited. Verbs of believing do not allow accusative lower subjects. Such subjects are restricted to the infinitival complements of verbs of perception and of verbs such as *laten* 'let, leave, make' and *doen* 'make' in Dutch and their German counterparts *lassen* and *machen* respectively. As a rule the pertinent accusative subjects do not passivize. None of them does in Dutch and only one of them does in German, e.g. *lassen*. The Subject Raising passive of *lassen* has been dealt with in Reis (1973 and 1976) and in Höhle (1978). Relevant data can also be found in the Duden Grammatik (1973) and in the Duden Zweifelsfälle (1972). First some examples. Consider the following:

(49) a. Wir wurden warten gelassen.
We were waiting left
b. Die Mädchen wurden schlafen gelassen.
The girls were sleeping left
c. Das Buch wurde liegen gelassen.
The book was lieing left

---

northern dialects of Dutch the following examples are supposed to be grammatical:

(i) Hij (nom.) wordt (sing.) de reiskosten (plur.) vergoed.
He is (for) the travel expenses compensated.
(ii) Zij (plur.) mogen (plur.) geen voedsel (sing.) geweigerd worden.
They may no food refused be

If this is true we have found an SOV language that patterns like English (against Dutch and German).

d. Das Licht wurde brennen gelassen.
The light was burning left

All sorts of peculiar restrictions are imposed upon these *lassen*-passives. First of all, there are no *lassen*-passives of the causative type. Second, the embedded verb may not have a dynamic reading, nor may there be an object, although the corresponding actives are grammatical. Compare the following examples:

(50) a. Wir haben den Sadat beten lassen.
We have Sadat praying left
b. *Der Sadat wurde beten gelassen.
Sadat was praying left

(51) a. Wir ließen ihn den Hund streicheln.
We let him the dog stroke
b. *Er wurde den Hund streicheln gelassen.
He was the dog stroke let

Before the examples in (49) are discarded as irrelevant evidence, it must be pointed out that the ungrammaticality of (50)b and (51)b seems to partly follow from an interesting syntactic or morphological constraint which is not yet well-understood. In the Duden Zweifelsfälle (1972, 436) and in the Duden Grammatik (1973, 276) it is stated that the *lassen*-passives require that *lassen* show up as a past participle. This requirement is interesting because verbal clusters with *lassen* and verbs of perception do not require a participial form if the pertinent verbs are modified by the temporal auxiliary *haben* 'to have'. Thus consider the following examples:

(52) a. Er hat das Fieber kommen fühlen.
He has the fever come feel
b. Er hat das Fieber kommen gefühlt.
He has the fever come felt

(53) a. Du hast mich lachen machen.
You have me laugh make
b. Du hast mich lachen gemacht.
You have me laugh made

(54) Das Buch habe ich liegen (ge)lassen.
The book have I lieing left/leave

Furthermore, Höhle (1978, 170-171) notes that only those constructions with *lassen* that allow the past participle of *lassen* in the active may be passivized. Some relevant examples are the following, where (55)a, (55)b, (55)c, and (55)d correspond to (49)a, (49)c, (50)b, and (51)b respectively:

(55) a. Sie haben uns warten gelassen.
They have us waiting left

b. Er hat das Buch liegen gelassen.
He has the book lieing left
c. Wir haben den Sadat beten (*ge)lassen.
We have Sadat praying *left/leave
d. Wir haben ihn den Hund streicheln (*ge)lassen.
We have him the dog stroke *left/leave

This observation is interesting in that verbal clusters with the verbs of perception, or with *laten* or *doen* in Dutch never allow a participle with the temporal auxiliary *hebben* 'to have' while passive constructions with these verbs are not allowed either. Compare the following examples:

(56) a. We hebben hem (*ge)laten wachten.
We have him leave waiting
b. *Hij werd gelaten wachten.
He was left waiting
(57) a. We hebben hem (*ge)zien vertrekken.
We have him see leaving
b. *Hij werd gezien vertrekken.
He was seen to-leave

Nevertheless, this syntactic constraint does not suffice to explain the paucity of Subject Raising passives in German since other verbs than *lassen* that allow a participle in the perfect as well do not allow Subject Raising passives. Compare the following examples:

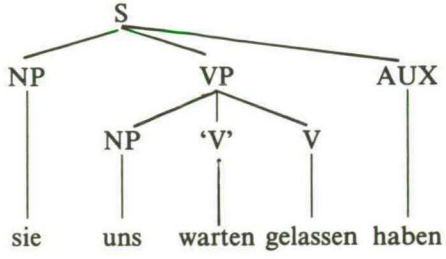
(58) a. Das haben wir nicht liegen (ge)sehen.
That have we not lieing seen/see
b. *Das wurde von uns nicht liegen gesehen.
That was by us not lieing seen
(59) a. Man hat ihn gestern abend kommen gehört/hören.
One has him yesterday night coming heard/hear
b. *Er wurde gestern abend kommen gehört.
He was yesterday night coming heard

It is clear that this situation calls for an explanation. I will not attempt to give an analysis for the limited occurrence of Subject Raising passives with the verb *lassen* but I would like to show that at least one analysis that might be thought of — which would analyze examples such as (55)a and b as not containing an infinitival complement — is ill-advised. I want to make this digression because it will lead us to an argument to the effect that there may be evidence that in those cases that the past participle of *lassen* is used *lassen* is accompanied by an infinitival complement.

The analysis I have in mind runs as follows: Suppose that in those cases that *gelassen* is used, such as in (49)a and (55)a, the embedded verb (in this

case *warten*) is not the head of a complement but a verbal particle. *Lassen* then could be easily related to the usage of *lassen* in expressions such as *in Ruhe lassen* 'leave alone' which has a meaning similar to the meaning of *lassen* in the alleged Subject Raising passives. Thus, the structure would be something like this:

(60)



Although this would give an explanation for the passivizability of *uns* — on the presumption that subjects of embedded clauses simply resist passivization, it does not explain why there is no passive corresponding to sentences such as (52)b — which might get a similar syntactic interpretation. In brief, I think that this suggestion is senseless. Furthermore, I would like to point out that analysis (60) prevents us from making an interesting generalization concerning the distribution of past participles in verbal clusters.

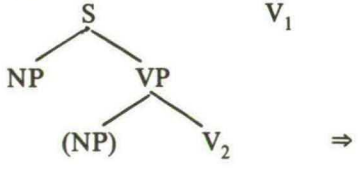
It is my definite impression that the following grammaticality judgements apply to the distribution of *haben* and *(ge)lassen*:

(61) a. --, daß sie uns warten *(ge)lassen haben
--, that they us waiting left/*leave have
b. --, daß sie uns haben warten (*ge)lassen
--, that they us have waiting *left/leave

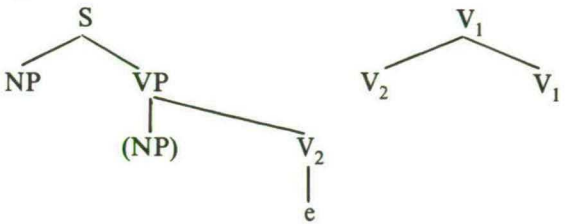
Similarly for other verbs that can show up in verbal clusters. Compare the Duden Grammatik (1973: 276, 1498, 1499, 1500).

This observation is interesting for the following reason: it has been claimed in Evers (1975) that infinitival clusters in German must be derived by left-adjoining the embedded verb to the higher verb:

(62) a.



b.



Such an account can be challenged in the case of examples such as (61)a where the verbs stay in their underlying order. This argument in itself does not suffice to show that *warten* has not been attached to *(ge)lassen* in (16)a. In fact, such superficial considerations fail in the case of (61)b, since there the AUX and the verbal cluster *warten lassen* have been inverted — which is possible only if *warten* has been attached to *lassen*, in spite of the fact that we cannot see that that has happened because *warten* and *lassen* stay in their underlying order.

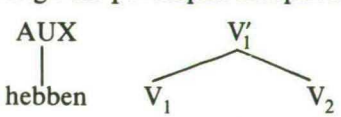
Thus there is indirect evidence that the rule of Verb Raising (Evers 1975) may exist in German. In Dutch this is a well-established rule, witness examples such as (63)a that may be interpreted as (63)b:

(63) a. --, dat hij het boek probeert te lezen
--, that he the book tries to read

b. $[_{\bar{S}}$ COMP $[_S$ hij $[_S$PRO $[_{VP}$ het boek $e_2]]]$ $[_{V_1}$ probeert$_1$ te-lezen$_2]]]$

Now note that Verb Raising in Dutch is obligatory except when V_1 is a temporal auxiliary or a finite modal verb. Furthermore note that Dutch Verb Raising clusters do not allow the formation of past participles, as is shown in the examples (56)a and (57)a. Let us assume then that the application of Verb Raising blocks the formation of past participles for the simple reason that Verb Raising clusters, though verbs in the syntactic analysis are not verbs in a morphological sense. Thus *hebben* 'to have' in (64) cannot assign the participial morphology to V_1' in (64):

(64)



When we apply this insight to the German examples in (61), again we have an argument that Verb Raising has been applied in (61)b but also we have an argument that Verb Raising has not been applied in the case of (61)a. What is more, we have an argument that the assumption underlying (60) need not be true and that the structure of *lassen*-passives may be as follows:

(65) $[_{\bar{S}}$ COMP $[_S$ NP$_i$ $[_{VP}$ $[_{\bar{S}}$ $[_S$ e_i $[_{VP}$ V$_3]]]$ *gelassen*$_2]$ *werden*$_1]]$

Compare the examples in (49).

So far for the German Verb Raising passives. There is much that is to be solved but it will not be done in this paper. The present paper will concentrate upon the analysis of Benefactive and Indirect Object passives in Dutch and German and an attempt will be made to come to grips with the observational confusion we have met with in the preceding paragraphs. However, before ending this subsection I would like to finish by discussing the Dutch Subject Raising passive.

As we have seen above Verb Raising in Dutch blocks the formation of past participles of the embedded verb. Furthermore we have seen that most probably the presence of a past participle is a conditio sine qua non for the application of Move NP in passive constructions — which reminds us of the ideas concerning passive past participles in Rouveret and Vergnaud (1980) (compare section 3). Thus neither the verbs of perception nor the verbs *laten* or *doen* — verbs that allow accusative embedded subjects in their infinitival complements and also verbs that obligatorily trigger Verb Raising — will allow passivization of an infinitival Subject (compare (56) and (57)). Yet Dutch does have an example for Subject Raising passives. The pertinent construction does not have an active counterpart. Consider the following examples:

(66) a. Jij$_i$ wordt niet geacht [e_i dat te weten]
You are not supposed [e_i that to know]
b. *Wij achten niet [jou (nonnom.) dat te weten]
We suppose not [you that to know]

(67) a. De burger$_i$ wordt geacht [e_i de wet te kennen]
The citizen is supposed [e_i the law to know]
b. *De staat acht [de burger de wet te kennen]
The state supposes [the citizen the law to know]

Note that there is a saying (see (68)) with the structure of (66)b and (67)b but its syntax is totally outlandish:

(68) Elk acht zijn uil een valk te zijn.
Each supposes his owl a falcon to be

(Also *meent* instead of *acht*)

The data in (66) and (67) is reminiscent of the data concerning *allege* that can be found in Chomsky (1980):

(69) a. John$_i$ is alleged [e_i to be a fool]
b. *I allege [John to be a fool]

Chomsky proposes to analyze verbs such as *allege* and the like as being [-Control] — which means that the Subject of its complement cannot be controlled — and as being [-F] at the same time — which means that the Subject of the infinitival clause cannot get assigned case across the sentence

boundary. Since the Subject of the infinitival clause must lexicalize on account of the feature [-Control] of the higher verb *allege*, it has to move because a lexical NP cannot be without Case. The same analysis can be applied to the examples in (66) and (67).

To conclude this subsection, I have shown that there is little reason not to assume that the *werden/worden*-passives of German and Dutch are derived by means of Move NP. On the one hand it has been shown that Chomsky's constraint against local transformations that do not reorder the terminal string (Chomsky 1973) does not suffice to prevent Move NP from applying to SOV structures. And on the other hand it has been shown that the application of Wasow's diagnostics (Wasow 1977) yields confusing results: Dutch does have a Benefactive passive, German does not. Both languages do have Indirect Object passives whereas the normal situation is for there not to be Indirect Object passives. And finally, both languages do have Subject Raising passives.[11]

In stead of saying that still Dutch and German have lexical passives I want to claim that such an approach is ad hoc. The (admittedly exceptional) passives in Dutch and German on Benefactive Objects, Indirect Objects, and Infinitival Subjects demonstrate a behavior that lexical passives are not supposed to have (compare Wasow (1977) and Lightfoot (1979a and b)). Furthermore, as I have stated in section 2., the (dynamic vs. statal) semantic opposition that obtains between the verbal and the adjectival passive in English also obtains between the German-Dutch *werden/worden*-passives on the one hand and the *sein/zijn*-passives on the other hand. Therefore, it seems reasonable to analyze the *werden/worden*-passive as being transformational in nature. This assumption tallies with the fact that the passive past participle in such passives can be shown to be verbal (at least as far as Dutch is concerned) while the passive participle in the *sein/zijn*-passives must be adjectival. This will be shown in the next subsection. This paper will attempt to give an explanation for the confusing data concerning Benefactive and Indirect Object passives in Dutch and German. No attempt will be made to give an explanation for the behavior of the Subject Raising passives in these languages. It suffices to know that such constructions do exist.

4.2. The passive participle in Dutch and German

In section 3 two approaches concerning the status of the passive past

11. Note that Latin (an SOV language) also had Indirect Object passives (cf. Grimm 1898, 729-730) and Subject Raising passives (cf. Rouveret and Vergnaud 1980, App. C.).

participle and its function in a theory of Case-assignment have been discussed: Rouveret and Vergnaud (1980) and May (1979). The latter assumes that passive past participles are adjectives while the former assume that the passive participles are elements that are assigned the feature specification [+V] as against the feature specification [-N, +V] for verbs. It is assumed that adjectives and [+V]s respectively do not assign Case.

Let me first discuss the assumption that adjectives cannot assign Case. This is simply false. In Dutch and German — and in many other languages I presume — they can. Thus, consider the following Dutch examples:

(70) a. Ik ben het beu.
I am of-it sick
b. Ik ben je zat.
I am with-you fed up

Also consider the following German examples:

(71) a. Ich bin ihn (acc.) überdrüssig.
I am with-him fed up
b. Er ist des Diebstahls (gen.) schuldig.
He is of (the) larcency guilty
c. Er ist keiner Beachtung (gen.) würdig.
He is no attention worth

Therefore, the assumption that adjectives cannot assign Case is ill-founded. But maybe the Rouveret and Vergnaud hypothesis (1980) can help us. Before discussing this idea I will first consider one of the diagnostics proposed by Wasow (1977) for the adjective-hood of a passive past participle and second an argument in favor of the verbal status of the passive past participle in *werden/worden*-passives.

Wasow (1977) discusses several environments where one may test whether a passive past participle under consideration is an adjective or a verb. One of these environments is the prenominal position for the attribute adjective, although Wasow is somewhat hesitant about this test. Also May (1979) makes use of this test — in order to show that the passive past participle is an adjective.

This test seems to provide us with a clear argument in favour of a lexical derivation for the German-Dutch *werden/worden*-passive. Restricting ourselves to Dutch we can see that such passives can be easily used in prenominal participial constructions such as:

(72) a. de onlangs (door Prins Bernhard) aangekochte
the lately (by Prince Bernhard) bought
vliegtuigjes
small airplanes

b. de mij vorige week toegestuurde boeken
the to-me last week sent books
c. de (door de commissie) aan Campert toegekende
the (by the committee) to Campert awarded
P.C.Hooft-prijs
P.C.Hooft prize

Note that these participial constructions allow agentive *door*-phrases — which is allowed for *worden*-passives.

No argument in favour of a lexical analysis for the Dutch *worden*-passives can be built upon the basis of examples such as those in (72). First note than any sentence containing a lexical Subject and the temporal auxiliary *zijn* 'to have' (litterally: 'to be') may be transformed into prenominal participial constructions. Thus, not only do we find examples such as those in (72) (compare (73)) there are also constructions such as those in (74) (compare (75)):

(73) a. Deze vliegtuigjes zijn onlangs (door Prins Bernhard)
These airplanes have lately (by Prince Bernhard)
aangekocht.
been-bought
b. Deze boeken zijn mij vorige week toegestuurd.
These books have to-me last week been-sent
c. De P.C. Hooft-prijs is (door de commissie) aan
The P.C. Hooft prize has (by the committee) to
Campert toegekend.
Campert been-awarded

(74) a. mijn gisteren uit Ottawa overgekomen tante
my yesterday from Ottawa over come aunt
b. de van mijn bureau verdwenen boeken
the from my desk disappeared books

(75) a. Mijn tante is gisteren uit Ottawa overgekomen.
My aunt has yesterday from Ottawa come over
b. De boeken zijn van mijn bureau verdwenen.
The books have from my desk disappeared

Finally, note that it is also allowed to construct participial constructions with actives other than those in (75). Consider the following examples:

(76) a. mijn Biesheuvel lezende leerlingen
my Biesheuvel reading pupils
b. Mijn leerlingen lezen Biesheuvel.
My pupils read Biesheuvel

(77) a. een schilders hatende maecenas
a painters hating Maecenas

t. Deze maecenas haat schilders.
This Maecenas hates painters

Note that these allegedly adjectival participles allow Direct Objects.

Thus there is no way to call prenominal participles adjectives. except when they are. This may sound mysterious but it is not.

How do we know whether a participle is an adjective or not? First note that past participles may permute with their respective temporal auxiliaries or passive auxiliaries, probably via an optional application of the rule of Verb Raising. Consider the following examples:

(78) a. --, dat hij gelachen heeft
--, that he laughed has
b. --, dat hij heeft gelachen

(79) a. --, dat zij gearriveerd is
--, that she arrived has
b. --, dat zij is gearriveerd

(80) a. --, dat hem de P.C. Hooft-prijs toegekend werd
--, that to-him the P.C. Hooft prize awarded was
b. --, dat hem de P.C. Hooft-prijs werd toegekend

Now consider an example with the copula *zijn* 'to be' and the adjective *verliefd* — an adjective that is participial in morphology:

(81) a. --, dat hij op haar verliefd is
--, that he with her in love is
b. *--, dat hij op haar is verliefd

Adjectives do not undergo Verb Raising and therefore (81)b will not be derived. On the other hand, examples such as (78) through (80) show that the passive past participle in *worden*-passives is not an adjective but sides with the verbs.

Finally consider the following example:

(82) --, dat hij er_i niet [$_{PP}$ e_i van] overtuigd is
--, that he it_i not [$_{PP}$ e_i of] {convinced is / been-convinced has}

This example is ambiguous. Either it is a *zijn*-passive or it is a *worden*-passive and then it can be related to (83) (compare section 2):

(83) --, dat hij er_i niet [$_{PP}$ e_i van] overtuigd is geworden
--, that he it_i not e_i of convinced has been

Under its statal reading (82) does not allow an agent phrase nor does it allow an application of Verb Raising, most probably because the past participle of a *zijn*-passive is an adjective and not a verb. Under its dynamic

reading, however, (82) allows both an agent phrase and an application of Verb Raising. Compare (84):

(84) --, dat hij *er*$_i$ niet door zijn broer [$_{PP}$ e_i van] is
--, that he it$_i$ not by his brother e_i of has
overtuigd
been-convinced

I have reproduced here a well-known argument from Dutch grammar in favor of the verbal status of the past participle in *worden*-passives as well as in favor of the adjectival status of the 'past participle' in *zijn*-passives. I refer to Kraak and Klooster (1968) who give a longer exposition of this argument as well as to Hoekstra and Moortgat (1979) who — besides giving the Verb Raising argument — also refer to an argument that makes use of preposition stranding. We know that prepositions in Dutch must strand to the left of the verbal cluster (also compare Van Riemsdijk (1978)). Therefore the *worden*-passive does not allow a stranded preposition between the participle and the auxiliary:

(85) *--, dat hij *er*$_i$ niet door zijn broer overtuigd [$_{PP}$ e_i
--, that he it$_i$ not by his brother been-convinced e_i
van] is
of has

On the other hand prepositions may strand to the left or to the right of predicative adjectives. Therefore we may predict the grammaticality of the following variant of (82) under its statal reading:

(86) --, dat hij *er*$_i$ niet overtuigd [$_{PP}$ e_i van] is
--, that he it$_i$ not convinced e_i of is

Thus we may conclude that the *zijn*-passives in Dutch require participial adjectives and therefore, their derivation must be lexical in nature. This means that the *zijn*-passives of Dutch correspond to the adjectival passives of English (cf. Wasow 1977). Furthermore, we may conclude that the *worden*-passives in Dutch require participial verbs and it seems reasonable to assume that their derivation must be transformational, especially in view of the data presented in section 4.1. This means that the *worden*-passives of Dutch may be said to correspond to the verbal passives of English (cf. Wasow 1977). Unfortunately, neither the Verb Raising argument nor the preposition stranding argument can be applied to German. Verb Raising in German does not permute two adjacent verbs and there is no preposition stranding in standard German (cf. Van Riemsdijk 1978). Nevertheless, I feel confident that German may receive the same analysis as Dutch and English, because the *werden*-passive shares the dynamic reading with the Dutch *worden*-passive and the English verbal

passive whereas the *sein*-passive is semantically equivalent to the Dutch *zijn*-passive and the English adjectival passive.

Finally, what can we say about Rouveret and Vergnaud's hypothesis (1980) that past participles (whether in a passive or in an active construction) do not assign Case because they fall outside the class of governors? This hypothesis presupposes that the temporal auxiliary does, whereas the passive auxiliary does not, assign Case to an Object via the participial affix that has been put on the verb. I think this hypothesis suffers from the same ad-hoc-ness as May's idea that adjectives do not assign Case (May 1979). There is no theory that can tell us which lexical categories do, and which do not assign Case. In fact, on the basis of German I think any lexical category can and one has to explain why for instance nouns in Dutch and English do not. The same applies to the idea that participles do not assign Case. In the course of section 5 and section 6 it will become clear that I have good reasons to assume that past participles may assign Case. Let me end with a practical problem for the Rouveret and Vergnaud hypothesis. What to do with German Indirect Object passives such as the following:[12]

(87) Er (nom.) ist die Vokabeln (acc.) abgefragt worden.
He has the words heard been

It seems to me to be ad hoc to claim that the accusative NP in (87) has been assigned an inherent Case. A reanalysis rule, incorporating the Direct Object in the past participle, does not work. The Direct Object may be topicalized:

(88) Die Vokabeln ist er nicht abgefragt worden.
The words has he not heard been

Therefore, I prefer to try out another analysis.

4.3. Pseudopassives

The pseudopassive, or prepositional passive, of modern English is another example for the claim that the verbal passive operates nearly blindly in that language. Compare (89) (=(32)e):

(89) a. John was taken advantage of.
b. This bed was slept in by general Haig.

12. The same for Latin and English Indirect Object passives. In Pisa Chomsky suggested to analyze the Direct Object in Indirect Object passives as having been assigned inherent Case — which comes close to what I will propose in section 6.

No such passives are known in Dutch or German, or in Old English (cf. Hoekstra and Moortgat (1979), and Lightfoot (1979)a and b). Nevertheless I do not think that an argument in favor of a nontransformational analysis for the *werden/worden*-passive in German and Dutch can be constructed on the basis of that.

First note that it is not true that any PP allows extraction of its object under Passivization:

(90) a. This conclusion was independently arrived at by Perlmutter and Postal.
b. *The ranch was arrived at by the president.

Therefore, Chomsky (1974) proposes to derive such passives via the application of a so-called idiom rule that will reanalyze idiomatic sequences such as *take advantage of* and *arrive at* as indicated in (91) —thereby creating new verbs:

(91) a. Bill $[_{VP}\ \{_{V}\ [_{V}$ took$]\ [_{NP}$ advantage$]\ [_{PP}\ [_{P}$ of$]\}\ [_{NP}$ John$]]]$
b. They $[_{VP}\ \{_{V}\ [_{V}$ arrived$]\ [_{PP}\ [_{P}$ at$]\}\ [_{NP}$ this conclusion$]]]$

After the creation of these idiomatic verbs — probably at deep structure —the Object, once a Prepositional Object, now a Direct Object, is free for Passivization.

This idea is in accordance with the hypothesis put forward by Van Riemsdijk (1978) to the effect that Prepositional Phrases are binding nodes. The following constraint is proposed:

(92) *The Head Constraint*
No rule may involve X_i/X_j and Y_i/Y_j in the structure

$$\ldots X_i \ldots [_{H^n} \ldots [_{H'} \ldots Y_i \ldots H \ldots Y_j \ldots] _{H'} \ldots] _{H^n} \ldots X_j \ldots$$

(Where H is the phonologically specified (i.e. non-null) head and H^n is the maximal projection of H)
(Van Riemsdijk 1978, 160)

Prepositional Objects are allowed to be extracted out of their PP either via a PP-internal escape hatch (a position [+WH] in English and a position [+R] in Dutch) that will be outside the P'. However, it is also possible to extract a Prepositional Object directly from its base-generated position if the preposition is not the head of the PP anymore. The idiom rule in English is one such rule affecting the binding nature of a PP.

The following condition for the application of a reanalysis rule seems to be required: it is imperative that only adjacent material be reanalyzed. Therefore, the idiom rule — which in English applies to an SVO structure containing prepositional PPs — cannot be applied in Dutch or German, since these languages are prepositional and SOV:

(93) $[_{VP} \ldots [_{PP} P\ NP]\ V]$

Consequently, one cannot find prepositional passives in these languages.[13]

4.4. Case assignment

The first study to introduce considerations of Case in linguistic theory has been Chomsky (1980). The original motivation for introducing Case has been the desire to eliminate the overlap that obtains between the Specified Subject Condition and the Propositional Island Constraint. Disregarding Subject Raising passives, the following is relevant for the present paper:

(94) a. NP is oblique when governed by P and certain marked verbs.
b. NP is objective when governed by V.
c. NP is nominative when governed by Tense
(Chomsky 1980, (68))

(95) α is *governed* by β if α is c-commanded by β and no major category or major category boundary appears between α and β
(Chomsky 1980, (69))

(96) *N, where N has no Case
(Chomsky 1980, (70))

It is assumed that Tense is a daughter of S. Furthermore, it is assumed that Case will be carried along under movement rules and that *oblique* Case will be assigned in the base. It follows that Prepositional Objects may not passivize unless the prepositional head has been incorporated in an idiomatic verb by the idiom rule.

Furthermore it is assumed that the trace left behind by *Wh*-Movement is semi-lexicalized in that a variable is inserted in the base-position of the *wh*-element that will be assigned Case. Therefore, the following condition applies for the case of Movement to COMP:

(97) a. assign Case under (94)
b. adjoin α to COMP, coindexing, with the assigned Case as part of the index
(Chomsky 1980, (108))

Finally, Case will play a role in the Conditions of Binding at the level of Logical Form. We will not consider that part of the theory.

13. In the discussion after my talk it has been suggested to me by Richie Kayne that pseudopassives are possible only if the surface Case system of a language has broken down and does not overtly distinguish objective and oblique anymore. That is quite possible. Maybe this idea can be tried out with a Case marking prepositional SVO language.

The sole reason for assuming that oblique Case is assigned at deep structure level — while objective and nominative are assigned at surface structure — seems to me to be the behavior of Prepositional Objects under Move NP. In order to explain the ungrammaticality of examples such as (90)b above, we assume that oblique Case is assigned in the base and is carried along by movement rules. Thus the NP *the ranch* in (90)b will show up as an oblique NP at surface structure, thereby conflicting with requirement (94)c. The idiom rule applying before Case assignment at deep structure, will exempt idiomatic Prepositional Objects from the assignment of oblique Case, thereby allowing them to undergo Move NP (compare (91) above).

It seems to me that the separation of oblique Case assignment and nominative and objective Case assignment is not necessary. Chomsky (1980) refers to Van Riemsdijk (1978) while discussing the idiom rule. This rule seems to me to be sufficiently motivated by Van Riemsdijk's Head Constraint ((92) above). If we assume that constraint there is no need for separating oblique Case assignment from the other Case assignments. What is more, we can do away with oblique Case unless one wants to replace the Head Constraint by Case Theory. There is little reason to assume that since prepositions cannot be stranded by *Wh*-Movement in many languages and the escape hatch in Van Riemsdijk (1978) offers an interesting way to account for the facts.

In the following section it will be argued that we need oblique Case for the analysis of Dutch and German and it may be assumed that Case is assigned at deep structure level and that Case is carried along under Movement. Consequently Move NP requires that the NP assume the Case of its landing site. Alternatively, one may conceive of Case as being assigned at surface structure level. If so, an NP that has been moved to COMP must acquire the Case of its base position.

5. Some data on Case in German (and Dutch) syntax

This section will deal with German mainly. Where interesting, references to Dutch will be made.

5.1. Case and passives

It is not unusual to conceive of cases as being function markers. Thus, the genitive can be conceived of as a possessive marker, or — more generally — as a marker for the Subject of an NP. Compare the following German examples:

(98) a. die Bücher des Professors
the books of-the professor
b. das Entstehen einer neuen Theorie
the coming-about of-a new theory

However, in many cases one cannot decide whether the genitive NP is the (passive) Subject or the Direct Object of the pertinent Noun Phrase. Thus consider the following examples.

(99) a. die Zerstörung der Stadt
the destruction of-the city
b. die Verleihung eines Ehrentitels
the conferring of-a honorary titel

As far as NPs at sentence level are concerned, there seems to be a one-to-one relationship between nominative, dative, and accusative and Subject, Indirect Object, and Direct Object respectively. Consider the following example:

(100) Er (nom.) hat mir (dat.) seinen neuen Roman (acc.)
He (subj.) has me (IO) his new novel (DO)
geschenkt.
given

This distribution of Case is the general rule but there are exceptions to that. For a full exposition of all different Case frames verbs can enter into I refer to the Duden Grammatik (1973, 1179-1212) and I would like to concentrate upon the phenomenon of dative and genitive Objects.

In general a verb with one NP in its domain assigns accusative case to that NP. However, some verbs take genitive or dative Objects. Consider the following examples:

(101) a. Wir gedenken der Toten (gen.).
We commemorate the dead
b. *Wir gedenken die Toten (acc.)
(102) a. Sie hat mir (dat.) gut geholfen.
She has me well helped
b. *Sie hat mich (acc.) gut geholfen.

(For (102) compare (32)b above.) Note that nonreflexive verbs with genitive Objects are extremely rare, whereas there are quite some verbs with dative Objects. In order to distinguish the genitive and dative Objects from the Indirect Objects, I will call then Intransitive (Direct) Objects.

Before we turn to the German passive, note that Prepositional Objects can be either genitive, dative, or accusative:

(103) a. durch den Wald (acc.)
through the forest
b. wegen der Toten (gen.)
because-of the dead
c. mit mir (dat.)
with me

Some prepositions take a dative or an accusative Object according to whether they are meant to be positional or motional respectively:

(104) a. im (= in dem) Wald (dat.)
in-the forest
b. in den Wald (acc.)
into the forest

In general the Cases prepositions are subcategorized for do not seem to have semantic content.

What happens to Intransitive Objects under Passivization? Consider the following examples:

(105) a. Es wurde der Toten (gen.) gedacht.
There was the dead commemorated
b. Der Toten (gen. plur.) wurde (sing.) gedacht.
The dead (sing.) was commemorated
c. *Die Toten (nom. plur.) wurden (plur.) gedacht.
The dead were commemorated

(106) a. Es kann ihm (dat.) nicht mehr geholfen werden.
There can him not anymore helped be
b. Ihm (dat.) kann nicht mehr geholfen werden.
Him cannot anymore helped be
c. *Er (nom.) kann nicht mehr geholfen werden.
He cannot anymore helped be

As we can see, Intransitive Objects may not be nominativized. Therefore, they enter into an impersonal passive — if their respective verbs may be passivized.

In section 2. we have seen that Dutch does not differentiate dative and accusative anymore. Therefore, it does not come as a surprise that in Dutch the Object of ***helpen*** 'to help' can be nominativized (compare (38) through (41) above). Another example, comparing Dutch (D) and German (G) is:

(107) a.G Es wurde ihm (dat.) gehorcht.
There was him obeyed
b.D Hij (nom.) werd gehoorzaamd.
He was obeyed

Nevertheless there seems to me to be at least one expression in Dutch whose passive may pattern with the German Intransitive Object passives, i.e. *open doen* 'to answer the door' (litterally 'to open'). Consider the following examples:

(108) a. Jan deed ons (nonnom.) open.
John answered the door (for) us
b.1 Er werd ons (nonnom.) open gedaan.
There was (for) us answered the door
b.2 Wij werden open gedaan.
We were answered the door

In spite of the grammaticality of (108)b2 the impersonal passive in (108)b1 is grammatical as well. Other examples are:

(109) a. Er zal u (nonnom.) binnen een week geantwoord worden.
There will you within a week answered be
b. ??U (nom.) zult binnen een week geantwoord worden.
You will within a week answered be
(110) a. Er zal zijn ouders nog wel geschreven worden.
There will his parents written be.
b. ??Zijn ouders (plur.) zullen (plur.) nog wel geschreven worden
His parents will written be

Thus, even Dutch is able to distinguish nonnominative nonaccusative Objects from Direct Objects — and this in spite of the fact that there is no surface distinction between dative and accusative anymore.

The same applies to Indirect Object passives in Dutch. We have seen (section 4.1) that Indirect Objects in German and Dutch do not passivize — except for the Indirect Object of *verzoeken* in Dutch (compare (44) and (45) above) — and in fact the Objects in the expressions used in (108) through (110) are Indirect Objects of elliptical transitive expressions.

Reviewing the above data as well as the data on Indirect Object passives in section 4.1 we may conclude that nonaccusative Objects in German and Indirect Objects in Dutch may not passivize.

5.2. Case and appositives[14]

There is some interesting data concerning Case and appositives in German that show that Indirect Objects, Intransitive Objects, Prepositional

14. This subsection as well as section 6 make use of ideas and material discussed in the seminar on Morphosyntactic Features mentioned in *.

Objects, and genitive adnominals may be conceived of as one class as far as Case is concerned.

This section is based upon data that can be found in Winter (1966) and Leirbukt (1978). Also see the Duden Zweifelsfälle (1972, 72-73) and the Duden Grammatik (1973, 1313). These studies note deviations from the general rule that an appositive NP must agree in Case with its antecendent. One type of deviation will not be discussed here because it is too general to be of interest for this study. I mean the use of a nominative appositive NP irrespective of the Case of the preceding NP.

However, there is a more restricted type of deviation that is quite interesting. The dative Case is used in a variety of constructions where one would not expect it to be used. Let us start with the paper by Winter (1966).

Winter (1966) notes that there is a tendency to use a dative appositive with a genitive antecedent. We have seen above that genitive NPs can be used in an adnominal position and as verbal, prepositional and adjectival Objects. Some examples gleaned from Winter (1966) and the Duden Zweifelsfälle (1972) are:

(111) a. das Beispiel Brasilien*s* (gen.), *dem* (dat.) größten
the example of Brazil the largest
Land des Subkontinents
country of-the subcontinent

b. wegen sein*es* (gen.) 'Orbis Pictus', *dem* (dat.) alten
because of his 'Orbis Pictus' the old
Lehrbuch in Bildern
illustrated textbook

c. unweit *der* (gen.) alten Festung Germersheim,
not far from the old fortress of Germersheim
jen*em* (dat.) traditionellen Manöverfeld in der
that traditional maneuvering field in the
Kaiserzeit
imperial era

To these observations can be added Leirbukt's (1978) observations on dative appositive NPs with accusative antecedents. Leirbukt notes that only accusative Prepositional Objects enter into this construction. Some examples taken from Leirbukt (1978) and Duden Zweifelsfälle (1972) are:

(112) a. der Preis für (governs acc.) Brot, *dem* (dat.)
the price for bread the
Grundnahrungsmittel der Bevölkerung
basic article of food of-the population

b. der Verkauf des Grundstücks an *den* (acc.)
the sale of-the plot to the
Komponisten, *dem* (dat.) späteren Ehrenbürger der Stadt
composer the later freeman of-the town

Such appositive datives are objected against by normative grammarians. Yet their existence is known since the early 19th century. What is important about them is that they never show up with (nominative) Subjects or (accusative) Direct Objects. We will use this observation as an indication for the distribution of what is called oblique Case in Chomsky (1980).

6. Case theory

6.1. A surface condition on oblique traces

Let us review what we have found up to now concerning Case in German and Dutch. The Dutch data will be interpreted in terms of the conclusions we can make on the basis of the German data.

The observations concerning appositives and Case in section 5.2 indicate that we may draw a line between nominative and accusative on the one hand and genitive, dative and prepositional accusative on the other hand. Or to put it differently, Subject and Direct Object are in one class, whereas Indirect Object, Intransitive Object, Prepositional Object, and adnominal genitive are in another class. This division is reminiscent of the Case distinctions assumed in Chomsky (1980). If we assume that nominative Case depends upon tense (Chomsky 1980), and that accusative Case is dependent upon the verb (Chomsky 1980: objective Case), the use of Case elsewhere may be conceived of as the residual class, as is indicated by the general use of dative appositive NPs in those environments. We will assume that the genitive, the dative, and the prepositional accusative all correspond to Chomsky's oblique Case (Chomsky 1980) and we will abstract away from distinctions that obtain within that class.

We will assume that adnominal genitives are governed by N. Thus it follows that such genitives are not nominativizable on account of the Head Constraint (compare section 4.3). The same constraint prevents Prepositional Objects from being passivized. On the other hand Indirect Objects are passivizable as far as the Head Constraint is concerned. On the basis of section 5.1 and section 4.1 (compare the examples (42) and (43)) we may conclude that any verbal Object that is oblique (dative or genitive) may not be passivized.

As an introduction for the rules of Case assignment, I would like to point

out that only rarely does oblique Case represent inherent Case, i.e. Case assigned by individual lexical items. Oblique Case can be conceived of as the nonnominative nonaccusative. Now let us assume that whenever NP gets assigned [+Case$_i$] when governed by L (L being Tense or a lexical category) all other NPs will receive [-Case$_i$]. It follows that Prepositional Objects (governed by P) and adnominal genitives (governed by N) will be automatically nonnominative and nonaccusative (i.e. [-Objective]). Furthermore note that assignment of the dative to Indirect Objects is the unmarked case. Whenever there is a Direct Object — which will receive accusative Case — the Indirect Object will be automatically assigned the dative Case. This can be made to follow from the theory if we assume —following Chomsky's definition of government (see (95)) — that the Direct Object in an SOV language prevents the Indirect Object from receiving accusative (or objective) Case:

(113) $\quad \ldots [_{VP} \ldots \underset{\text{dat.}}{NP_1} \ldots \underset{\text{acc.}}{NP_2} \ldots V] \ldots$

Thus only Intransitive Objects will receive their Case (dative or genitive) via the lexicon (compare section 5.1). We may assume that — except in the case of the adnominal genitive — dative is the unmarked Case for nonnominative nonaccusatives (compare section 5.2).

Besides the above considerations the following must be taken into account: All NPs symmetrically c-commanded by Tense or a lexical category will be Case-marked. Therefore infinitival Subjects do not bear Case, unless they are in the domain of a [+F] verb or *for* (compare the discussion concerning (66)-(67) and Chomsky (1980)). If we were to assume that Case is assigned at deep structure level we would be forced to assume that move NP must drop Case in infinitival complements. Therefore, let us assume that Case is assigned at surface level and that *wh*-phrases are coindexed for Case with their base position (compare section 4.4).

Assuming then that only NPs may be governed, the following definitions will define government:

(114) α is a *term* with respect to β if
(a) α is symmetrically c-commanded by β ($\beta =$ Tense, V, P, N, A) *or*
(b) α is asymmetrically c-commanded by β, where β is marked [+F]

(115) α is *governed* by β if α is a term with respect to β and no γ (γ a term with respect to β) appears between α and β.

Definition (114) insures that infinitival Subjects will not be assigned Case

unless the higher verb (or *for*) is [+F]. By definition (115) Indirect Objects are not governed.[15]

The following features will be used to assign Case: αSU and βCA, where SU stands for Subject and CA for Closest Argument. We will assume that the nominative Subject is [+SU, -CA, ...] and the accusative Direct Object [-SU, +CA ...]. Oblique terms will be [-SU, -CA, ...]. The dots in the feature complexes indicate that more features are needed to separate the genitive from the dative and the prepositional accusative.

Let us assume that only inherent Case must be marked in the lexicon. Thus the following sample from the lexicon can be given:

(116) a. *lesen* «to read»: [+NP —]

b. *geben* «to give»: [+NP NP —]

c.1 *gedenken* «to commemorate»: [+NP —] [-SU, -CA, ...] (genitive)

c.2 *helfen* «to help»: [+NP —] [-SU, -CA, ...] (dative)

These are entries from the German lexicon. The Dutch lexicon will be practically similar in structure, except for the entries under (116)c. Nearly all Intransitive Objects that existed in earlier phases of Dutch have been given up in favor of Direct Objects or Prepositional Phrases. Only a tiny set of Intransitive Objects has been retained and most of them can be interpreted as Indirect Objects or Benefactive Objects in elliptical double NP constructions.[16]

15. Note that we abstract away from problems concerning the description of predicative NPs such as in (i) and (ii) and of constructions such as in (iii):

(i) a. Er nannte mich (acc.) einen Lügner (acc.).
He called me a liar

b. Ich (nom.) wurde von ihm ein Lügner (nom.) genannt.
I was by him a liar called

(ii) Er ist ein Idiot (nom.)
He is an idiot

(iii) Er hat mich (acc.) des Diebstahls (gen.) beschuldigt.
He has me of (the) larcency accused

16. Note that (i), once grammatical, is out in the (sociologically dominant) western variety of standard Dutch:

Case assignment then will proceed as follows:

(117) Assign [αSU, βCA] to an NP if it is a term

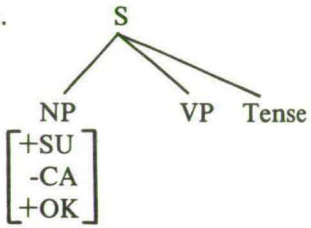
(118) For any NP_i that is [αSU, βCA]
(a) assign [+OK] to NP_i if NP_i fits the Case subcategorization requirement of L with respect to which NP_i is a term
(b) assign [-OK] to NP_i elsewhere

(119) For any NP_i that is [-OK], change NP_i to [+OK], if the following conditions are met:
(a) NP_i is [+SU] and governed by Tense
NP_i is [-SU] elsewhere
(b) NP_i is [+CA] and governed by V
NP_i is [-CA] elsewhere

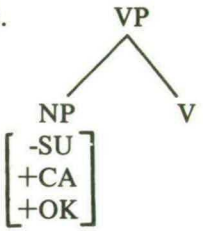
(120) *NP, where NP is [-OK]

Thus the following feature specifications can be found in their respective syntactic environments:

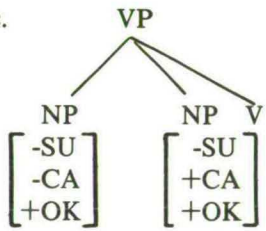
(121) a.



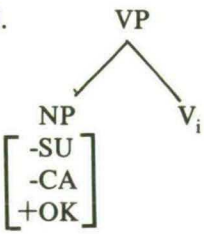
b.



c.



d.



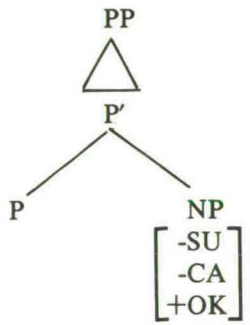
V_i: [+NP —]
[-SU
-CA
...]

(i) Hij deed ons de deur open.
He answered us the door
'He opened us the door'

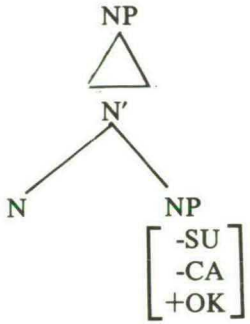
Instead of (i) (ii) can be used:

(ii) Hij deed de deur voor ons open
He opened the door for us

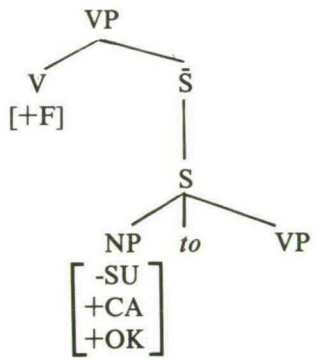
(121) e.



f.



g.



h. etc

The case-marked NP in (121)g is marked not because of its being [-SU, +CA, +OK] but because of the application of the second clause of (114). Restricting our attention now to (121)a through d, one can see that the markedness of the [-SU, -CA] NP in (121)d — as against the unmarked status of the [-SU, -CA] NP in (121)c — can be easily derived on the basis of (119). The (rather primitive) evaluation metric for the markedness of Case assignments I have in mind reads as follows:

(122) Any NP_i that is [+OK] is
(a) [uSU] if NP_i satisfies (119)a
[mSU] otherwise
(b) [uCA] if NP_i satisfies (119)b
[mCA] otherwise

Thus the Intransitive Object in (121)d will be [uSU, mCA] whereas the Indirect Object in (121)c will be [uSU, uCA].

Finally let us assume that the Case assignment rules (117) through (120), applying at surface level, will assign Case to any NP whether lexical or not. *wh*-phrases will be assigned Case via coindexation.

As we have seen above, no verbal Object that is oblique, i.e. [-SU, -CA], can be passivized. On the other hand, oblique NPs may move into COMP, witness examples such as the following:

(123)a. Wem (dat.) hast du das Buch gegeben?
To-whom have you the book given?
b. Wem (dat.) hast du geholfen?
Whom have you helped?

Therefore, let us assume the following surface condition upon oblique traces:

(124) *Surface condition upon oblique traces*
* $[_{NP_i}$ e], where NP_i is [-SU, -CA], unless NP_i is bound by NP_j, where NP_j is [-SU, -CA]

In section 6.2 this condition will be revised. However, before doing that, let us see what sort of predictions (124) can make. Note that (124) allows the passivization of any NP that is [-SU, +CA] (accusative) or does not bear Case (compare (66)-(67)). Thus if we were to find accusative Indirect Objects, for instance in German, we would expect them to be passivizable. In fact, German does have Indirect Objects that are accusative. Consider the following examples:

(125) a. Er hat mich (acc.) Deutsch (acc.) gelehrt.
He has me German taught
b. Sie hat mich (acc.) beauftragt, die Sachen abzuholen.
She has me ordered the stuff to get
c. Ich habe ihn (acc.) die Vokabeln (acc.) abgefragt.
I have him the words heard
d. Ich habe ihn (acc.) das Gedicht (acc.) abgehört.
I have him the poem heard

These accusative Indirect Objects are marked and they are gradually falling into disuse in the modern language. Nevertheless, they may still be used. Their markedness can be easily deduced from the subcategorization frames of their respective verbs that will all read as follows:

(126) [+NP NP —]
$\begin{bmatrix} -SU \\ +CA \\ \cdots \end{bmatrix}$

As for the passives corresponding to the sentences in (125), we have seen above (see (48)) that these accusative Indirect Objects do not resist passivization:

(127) a. Ich (nom.) bin Deutsch (acc.) gelehrt worden
I have German taught been
b. Ich (nom.) bin beauftragt worden, die Sachen abzuholen.
I have ordered been the stuff to get
c. Er (nom.) ist die Vokabeln (acc.) abgefragt worden.
He has the words heard been
d. Er (nom.) ist das Gedicht (acc.) abgehört worden.
He has the poem heard been

As I have said above, accusative Indirect Objects are falling into disuse. They are being replaced by datives. Thus, it is also possible to find pairs such as the following:

(128) a. Er hat mir (dat.) Deutsch (acc.) gelehrt.
He has me German taught
b. Mir (dat.) ist Deutsch (nom.) gelehrt worden.
Me has German taught been

More data on German verbs with two Direct (accusative) Objects can be found in Grimm (1898), Paul (1919-1920), Curme (1922), the Duden Grammatik (1973), and the Duden Zweifelsfälle (1972). It is interesting to note that once also Direct Object passives were possible with the Indirect Object still being an accusative:

(129) a. Ihn (acc.) wurde die deutsche Sprache (nom.) gelehrt.
Him was the German language taught
b. Das (nom.) ist mich (acc.) nicht gelehrt worden.
That has me not taught been

Nowadays such passives sound totally outlandish. I will not try to specify the conditions that exclude (129) nor will I consider the question of why an Indirect Objects passive sounds best with an infinitival complement:

(130) Ich (nom.) wurde gefragt, ob ich etwas gehört
I was asked whether I something heard
hätte.
had

Also compare (44) and (45).

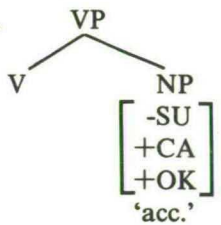
In conclusion, we may say that condition (124) makes the right predictions. In fact, (124) expresses what has been known for a long time to students of the Germanic languages, namely that only accusative objects may passivize.[17]

17. In Höhle's lexicalist approach accusative plays an important role. He does not mention Indirect Object passives, though.

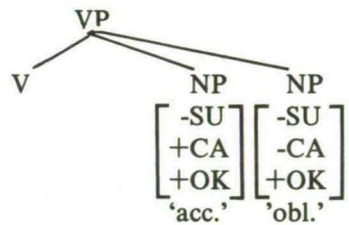
6.2. Two types of traces and a Case filter

The system developed above predicts that SOV languages may not passivize their Indirect Objects unless they mark them accusative. Radically different predictions are made for SVO languages. According to the Case assignment rules (117)-(119) we will find the following distribution of accusative and oblique in the unmarked case for Direct and Indirect Objects:

(131) a.



b.



Thus, the following pattern of grammaticality judgements is predicted:

(132) a. John was given a book.
b. *That book has been given John.
c. That book has been given to John.

As far as I can tell, the majority of speakers of English reject Direct Object passives such as (132)b. However there are also speakers who accept such sentences. It seems to me that sentences such as (132)b are somewhat archaic — which is exactly what one may expect. More will be said about this in section 7. Now consider a construction where (124) makes wrong predictions, i.e. *for*-infinitives with lexical subjects. We may assume that *for* — if it allows lexical Subjects — will be prepositional (compare Chomsky 1978). Therefore, such Subjects that cooccur with *for* will be assigned [-SU, -CA]. Let us assume furthermore that *for* may delete because it is not a real preposition but a complementizer. This predicts that infinitival Subjects of complements of verbs such as *want* may not be passivized:

(133) a.1 I want (*for) you to do that.
a.2 I want very much for you to do that.
b. *You are wanted to do that.

(Also compare Lightfoot (1977b).)

But now let us consider an application of Move NP inside a *for*-infinitive. As it stands condition (124) predicts that the following sentence will be grammatical — which is wrong:

(134) *I want (very much for) this book to be given John.

It is evident where (124) goes wrong. Condition (124) does not make the right distinctions between traces left behind by Move NP and those left behind by Move WH. Thus, the solution suggests itself immediately.

Now consider that *wh*-traces in base-generated position are supposed to be lexical in nature (cf. Chomsky (1977) and Lightfoot (1977b)). A variable is supposed to be inserted in such a trace position. Suppose then that movement from an NP position to COMP leaves behind a variable that may be spelled out as $[_{NP}\ \#\ x\ \#]$. Suppose furthermore that such a trace counts as a lexical NP. If so, the following surface filter may replace the surface condition (124):

(135) * $[_{NP}\ e]$, where NP is [-SU, -CA], unless NP is lexical

This filter accounts for the facts in that it will exclude (133)b, as well as (134). I do not want to claim that his approach is necessarily right. At least one other approach is conceivable and it will be discussed in the concluding section 8.

7. Markedness and syntactic change

In the preceding section I have shown that in German — and to a much lesser extent in Dutch — there are at least two options for marked Case assignment. Either a «Direct Object» is spelled out as [-CA] or an «Indirect Objects» is spelled out as [+CA]. These marked Case assignments cause some irregularity in the passivization pattern allowed by filter (135) in that some «Direct Objects» do not passivize whereas some «Indirect Objects» do. We will not consider here why a language would allow such marked Objects at all but we will briefly discuss what the above ideas about Case assignment can tell us about syntactic change.

First consider German. It has been noted in section 6.1 that accusative Indirect Objects are giving way to datives — although that process has not been finished yet. As for the Intransitive Objects, it is interesting to know that once Dutch had more or less the same Case system as German in that there were Intransitive Objects and accusative Indirect Objects. Since then Dutch has greatly reduced its surface Case system to a two-way (nominative-nonnominative) system. Nevertheless, Dutch still has some verbs that take Intransitive Objects. These Objects as well as all Indirect Objects minus one or two may not be nominativized when their verb is passivized. However, in general we may say that the syntactic history of Dutch has been one of moving away from a system with a large number of marked Case assignments to a system with a limited number of such Case assignments.

The history of English has been even more radical. Old English was an

SOV language with surface Case morphology for Case. It will not come as a surprise that Old English had a Case system that is reminiscent of the German Case system. There were Intransitive Objects as well as accusative Indirect Objects and their behavior under passivization conforms to filter (135).[18] According to the position I have defended in this paper, modern English, now an SVO language, still obeys the filter, but, it has lost the marked Objects of Old English. There are no Intransitive Objects any more — which most probably is related to the loss of surface Case distinctions as well as to the loss of the impersonal passive construction. The marked Indirect Objects however have turned into unmarked ones and their number has been greatly increased by the shift from SOV to SVO. This hypothesis concerning the history of English is an alternative to the hypothesis put forward by Lightfoot (1979a and b) who claims that English has changed from an SOV language with a lexical passive to an SVO language that in the course of time introduced Move NP for the derivation of its passives.

Finally note that the hypothesis put forward in this paper predicts also that SVO languages possessing double Object constructions will move away from Direct Object passives in such an environment.

8. Concluding remarks

In this paper I have argued that there are two passives in Dutch and German corresponding to the verbal and the lexical passive of English (cf. Wasow 1977). Furthermore I have argued that it is not possible to argue against the existence of a rule of Move NP in SOV languages such as Dutch and German. Therefore the verbal passive in these languages may be derived by Move NP, which tallies with the fact that one can find at least some Benefactive, Indirect Object, and Subject Raising passives in these languages. A solution has been offered that made crucial use of a system of Case assignment that is partly based upon Chomsky (1980). A surface filter was proposed which disallowed oblique NP traces. Conclusions were drawn for the analysis of English. Finally, some remarks on Case assignment and markedness were added.

The conclusion I reached in section 6.2 cannot be a definitive one. One would like to have an explanation for the exceptional behavior of oblique NPs. It is quite possible that our conception of the passive construction is wrong and that something else is going on. Note that there are no

18. For data on Old English passives see Jespersen (1927), Visser (1973). There are some short remarks covering all of the cases in Traugott (1972). Also compare Lightfoot (1979a, 260 fn.) and Lightfoot (1979b, fn. 2).

impersonal passives with accusative Direct Objects in German or Dutch:

(136) *Es ist deinen Roman (acc.) gelesen worden.
There has you novel read been

Similarly for double accusative constructions:

(137) *Es ist mich (acc.) die Vokabeln (acc.) abgefragt worden.
There has me the words heard been

Thus passivization may be a rule of Case change which induces Move NP instead of vice versa. The peculiar behavior of oblique Case may then be explained in terms of a more elaborate theory of Case. This theory must also be able to account for the clear tendency in German to nominativize only the Indirect Object if both Objects are accusative. Such a theory might yield an alternative account for the strong tendency in modern English not to passivize the Direct Object in a double Object construction, if we assume that both objects are accusative. Finally we may hope that a more elaborate theory of Case and passivization (or Move NP) will give an explanation for why past participles are required for a verbal passive in Dutch and German. No doubt the resulting theory will incorporate elements of the hypotheses concerning the passive past participle put forward by Rouveret and Vergnaud (1980) and May (1979).

Remarks concerning chapter 4.

R1. *Historical status*

This paper was written as an explicit attempt to show (a) that Move NP may be a true option for SOV languages such as Dutch and German; (b) that there is no reason to assume that the nonstatal passive in Dutch and German requires a lexical analysis as against the syntactic analysis for the nonstatal passive in English because the differences in passivizability of NPs derive from the paradigmatic differences in Case-assignment properties between SVO languages like English and SOV languages like Dutch and German; and (c) that there is a filter against NP traces marked with oblique Case, provided that both the NP moved to Subject position and its trace get Case at surface structure.

It should be noted that this paper was written with a view to ideas about passivization that were around in 1978 and 1979. Especially (c) above is at variance with present ideas about Move NP in the Government and Binding framework (cf. for instance the final version of Chomsky's 1979 Pisa Lectures in Chomsky (1981)). The change of view is already noticeable at the end of the paper under consideration.

In the final chapter of this book my analysis of Passive in Dutch and German has been brought more in line with current ideas about Case absorption in passive (and ergative) structures. This means that the ungrammaticality of (134) in chapter 4. can now be explained on the ground that the NP *John* is left without Case. This obviates the revision of the Surface condition on oblique traces (124) repeated here as (i):

(i) *$[_{NP_i}$ e], where NP_i is [-SU, -CA], unless NP_i is bound by NP_j, where NP_j is [-SU, -CA]

However, we may wonder whether there is any use for (i) outside the context of *Wh*-Movement — because if there is not we do not need (i) at all, since all instances of Move WH are supposed to involve Case transmission. Note that (i) cannot be saved if we find instances of Move NP involving an oblique NP moving into Subject position without changing its Case. Yet in the next chapter it is claimed that sentences such as those in (ii) may involve the movement of Dative NPs into Subject position:

(ii) a. --, dat het museum$_{DAT}$ een mooie urn$_{NOM}$
--, that to-the museum a beautiful urn
geschonken is
donated has-been

b. --, dat onze buurman$_{DAT}$ iets raars$_{NOM}$
--, that to-our neighbor something strange
overkomen is
happened has

It is furthermore assumed that in these Dutch sentences Nominative is assigned within the VP (a theoretical move which I was still afraid to make in my 1979 paper, i.e. chapter 4.). Now, even if we apply our Case-assignment rules at surface structure (S-structure) these structures can be derived and will not constitute a crucial case for the surface condition upon oblique traces in (i). Let us assume that the structural Subject position is without Case in the above examples because the DO position has been assigned Nominative. We may furthermore assume that Cases assigned to traces of NPs appearing in Case-less positions (be they Spec,CP or a Case-less structural position) can be transmitted, which accounts for the appearance of a Dative NP in Subject position in (ii)a and b. Since these structures are allowed by condition (i), they are as irrelevant as instances of Move WH of a Dative NP to sentence-initial position.

Furthermore note that German impersonal passives with Dative NPs, such as in (iii) below do not tell us anything new about condition (i) either:

(iii) --, daß ihm$_{DAT}$ nicht geholfen werden darf
--, that to-him not helped be may

Such examples can be analyzed in at least two different ways. Either it is assumed that in German impersonal passives no Nominative is assigned at all so that the Dative NP can be moved into Subject position, or it is assumed that there is a Nominative which is assigned to an invisible Subject position, which only surfaces as the expletive pronoun *es* 'it' if the Subject is moved to the pre-finite position in main clauses (cf. *Es darf ihm nicht geholfen werden*). Under the latter analysis there might be a case for surface condition (i), because examples such as (iv) must still be excluded:

(iv) *--, daß er$_{NOM}$ nicht geholfen werden darf
--, that he not helped be may

Yet, it is not completely clear which analysis must be chosen for impersonal passives. Only if we opt for the second analysis, which presupposes the presence of two Cases for (iii), Dative and Nominative,

will there be evidence for filter (i), because all other structures that will involve more than a (hypothetical) Nominative position and one or two Oblique positions will be structures with an NP position that will be taken care of by the Case absorption analysis. The pertinent NP either has to move to Subject position or will receive Case *in situ*. Otherwise it will be rejected by the Case Filter of Chomsky (1981). A relevant example is the subordinate clause in (ii)a. Since such structures are taken care of by the standard mechanisms of Government and Binding Theory they are irrelevant for the surface condition upon oblique traces defined in (i).

Therefore, only if we analyze impersonal passives as in (iii) as involving one or more Oblique NPs and a Nominative position will there be evidence for the surface filter in (i). This is a topic for future research. Note in passing that the surface filter in (i) is another way of saying that Case clashes should be avoided: no NP bearing (Oblique) Case may be moved to another position bearing Case (or to a position which may not bear Case by definition, i.e. the PRO Subject position).

For some heretical ideas about Move NP (or rather its absence) in Dutch and German, which will obviate the need for a surface condition upon oblique traces even in the case of impersonal passives, see R4. to chapter 5.

These heretical ideas have funny consequences for the analysis defended in this chapter. As I pointed out at the beginning of this remark concerning chapter 4., this paper has been written as an explicit attempt to show inter alia that Move NP may be a true option for SOV languages such as Dutch and German. However, if it can be shown that the pertinent cases of Move α do not represent Move NP at all, one may wonder what is left of this study that was written in 1979 (and eventually published in 1981). In so far as I can see the core idea of chapter 4. that still stands is the insight that nonstatal passives in Dutch and German do not require a lexical analysis and that paradigmatic differences in Case-assignment properties between an SVO language like English and SOV languages like Dutch and German account for the differences in passivizability of NPs that hold between these languages.

R2. *Double Accusative and Accusative-Genitive structures in German*

There are two types of Case structures which this chapter does not say enough about: double Accusative structures and Accusative-Genitive structures, exemplified in (i) and (ii) respectively:

(i) Er hat mich$_{ACC}$ Deutsch$_{ACC}$ gelehrt (= (125)a in this chapter)
He has me German taught

(ii) Er hat mich$_{ACC}$ des Diebstahls$_{GEN}$ beschuldigt
He has me of (the) larcency accused
(= example (iii) in footnote 15)

Structures as in (i) are analyzed as involving a marked Accusative Indirect Object (*mich*) and an unmarked Accusative Direct Object (*Deutsch*). This analysis leaves unexplained why it is the personal Object that has to become Nominative under passivization. Compare (iii):

(iii) Ich$_{NOM}$ bin Deutsch$_{ACC}$ gelehrt worden (= (127)a)
I have German taught been

As for the Accusative-Genitive structure in (ii), this structure is mentioned in footnote 15 but it is not dealt with at all. Note that this Case structure is not incompatible with the framework defended in chapter 4. However, we are forced to assume that both Objects are marked in terms of Case-assignment. This is so because the Genitive Object, which is [-SU, -CA], is in a position for the assignment of [-SU, +CA] since it is governed by V, while the Accusative Object, which is [-SU, +CA] is in a position for the assignment of [-SU, -CA] since it is not governed by V. Therefore the following lexical entry in the German lexicon is called for:

(iv) *beschuldigen* "to accuse" [+ NP NP —]

$$\begin{bmatrix} -SU \\ +CA \end{bmatrix} \begin{bmatrix} -SU \\ -CA \\ \dots \end{bmatrix}$$

(genitive)

What is unfortunate about this analysis from a modern point of view is that the Accusative Object of *beschuldigen* behaves as a structural Accusative in that it has to become Nominative (or PRO) under passivization although (iv) seems to suggest that this is an Oblique Accusative. Similarly of course for the Accusative Indirect (or: personal) Object in (i).

In chapter 5. it is concluded from these considerations that the pertinent Accusative Objects bear structural Case and that apparently a structural Accusative may be separated from the verb by an Oblique NP (or a PP). This alternative analysis raises new questions, for instance about why in these structures the structural Accusative does not have to be adjacent to the verb. Hopefully future research will show that there is more structure to such sequences of an Accusative and an Oblique NP, for instance structure of a Small Clause-like type so that the Accusative NP will after all appear in a normal position for structural Case-assignment.

R3. *Adjectives, participles and Case*

In section 4.2. it is argued that it is ill-founded to assume that passive participles cannot assign Case because they are adjectives or — alternatively — because they do not fall within the class of (Case-assigning) governors. However, it now seems to me that my own counterarguments are not well-thought-out.

First of all, even though it can be shown that passive participles in Dutch *worden*-passives cannot be adjectives (as is done in 4.2.), the very fact that Dutch and German adjectives can assign Case does not show that these elements can assign structural Case. Most probably they assign Oblique Case (even though this cannot be seen in the case of the few Dutch adjectives that take NP Objects.) (Also compare Van Riemsdijk (1983) on German adjectives.) Therefore, the much quoted case of *of*-insertion with English adjectives which is supposed to salvage the presence of their respective NP Objects (*proud of* NP, *afraid of* NP, etc.) solely shows that English adjectives had to resort to prepositional strategies after they lost their morphological Cases because they have no structural Case available (unlike what happened with English verbs like *help* that could turn their Oblique Objects into Direct Objects — because verbs can assign structural Case).

Secondly, as is shown in chapter 5., there are good reasons to assign past participles (and therefore also the passive participles in Dutch *worden*-passives) to a special syntactic category [+V]. The fact that past participles assign Case does not show that these elements can assign structural Case. Assignment of structural Case may be dependent upon the auxiliary (*hebben* in Dutch, *haben* in German: both 'have') while all the other Cases will be Oblique ones. Even example (87), repeated here as (i) below, which is quoted as a practical problem for Rouveret and Vergnaud's hypothesis (1980), to the effect that past participles do not assign (structural) Case because they fall outside the class of governors, does not show that past participles assign structural Case by themselves:

(i) Er_{NOM} ist die $\text{Vokabeln}_{\text{ACC}}$ abgefragt worden
He has the words heard been

This German example corresponds to the following active sentence: (but for the Agent phrase in (ii) of course):

(ii) Ich habe ihn_{ACC} die $\text{Vokabeln}_{\text{ACC}}$ abgefragt
I have him the words heard
(= (125)c in chapter 4)

Now, in section 4.2. it is argued that it would be ad hoc to claim that the

Accusative NP in (i) has been assigned Oblique Case (and that an incorporation analysis will not do either). However, as I have pointed out in R2. above there is good reasons to assume that the second Accusative in double Accusative constructions is an Oblique NP.

Chapter 5

The Ergative Hypothesis and Free Word Order in Dutch and German*

1. Introduction

The syntax of both Dutch and German is characterized by a certain amount of freedom of word order. To be more precise: in the so-called *Mittelfeld* or 'middle field', i.e. the stretch of linguistic material between COMP or the preposed finite verb (in main clauses) and the VP-final verb, the Nominative Subject NP can be preceded by other argument NPs. The freedom of word order in German is sometimes attributed to the presence of morphological case in this language. However, such a common sense explanation will not do in the case of Dutch, since the latter language does not have morphological case at its disposal and yet allows a fair amount of freedom of word order. This implies that the German morphological case system may not even suffice as the beginning of an explanation for those instances of free word order in German which are not shared by Dutch.

Whatever the merits of considerations based upon morphological case, those instances of free word order which Dutch and German syntax have in common call for an explanation. One might want to hypothesize that these West Germanic languages are nonconfigurational in that they lack a VP. There is a fair amount of literature on this topic, especially in the field of German syntax. I refer to Haider (1981 and 1982), Tappe (1982), Thiersch (1982) and Den Besten (1982). Haider and Tappe argue against a syntactic VP, whereas Thiersch and Den Besten favor a configurational analysis. In this essay I will follow the latter line of thought and show how an analysis involving a VP, Move NP and a parameter concerning

*This paper combines and partly revises two earlier papers of mine: Den Besten (1981b) and (1982). Since the 1981 paper is in German and since the 1982 one appeared in a working papers series with a limited distribution, I hope that this paper will make the ideas contained in the above-mentioned essays available for a wider public.

Case Assignment can provide us with a satisfactory account of certain inversions of NPs that give Dutch and German syntax such a nonconfigurational appearance. This does not imply that all other instances of free inversions of two NPs in Dutch and German can be described in terms of Move NP. (It is my impression that at least some of them cannot.) However, the above statement does imply that one cannot simply refer to the permutability of NPs in the Dutch and German *Mittelfeld* when arguing for nonconfigurationality. The pertinent sets of facts require further analysis before they can be used as an argument to that effect. Furthermore it should be taken into account that the free word order phenomena in Dutch and German are not that 'free' at all. In many cases no inversion is possible and where inversion is possible all sorts of conditions keep the pertinent permutations within certain well-defined limits. Overviews of these conditions can be found in Lenerz (1977) and Abraham (1982). These studies also show that certain NP orders should be considered basic, whereas the respective inverse orders can be viewed as 'derived'. It is only for such reasons that one may use words like 'inversion' or 'permutation' when referring to the pertinent phenomena. Since such concepts seem to make little sense in a nonconfigurational account, the adherents of the idea of nonconfigurationality must find a different way to go about it, whereas a configurational Move NP acount will not meet any problems here. Finally note that the evidence in favor of a VP in Dutch and German is not completely absent (compare Thiersch 1982) and I will argue in this paper that there also is a 'small VP', which leads even further away from a 'flat S' analysis.

To become a little more concrete, let us now turn to some observations. Given what can be found in the literature three types of phenomena can be distinguished which involve reordering of NPs. The first type comprises Topicalization and *Wh*-Movement, rules moving elements to COMP, and will not concern us here, because it does not pertain to the *Mittelfeld*. The second type involves what might be called S-internal and VP-internal Topicalization (cf. Thiersch 1982). Examples of the latter type are:

(1) a.G Ich glaube, daß diesen Baum$_{ACC}$ ein Förster$_{NOM}$ gefällt
I believe that this tree a forester cut-down
hat.
has

b.G Schenken Sie Ihre Stimme unserer Partei.
Give you your vote to-our party

(Throughout this paper G will be used as an indication for German and D as an indication for Dutch.)

I have relatively little to say about such cases and they will not be dealt with in this paper. Examples like (1)a seem to me to be fairly restricted in usage. Examples like (1)b are much more natural, although DAT ACC is the unmarked order.[1]

Finally, there is a set of inversion phenomena which — unlike the S-internal and VP-internal Topicalizations — are shared by Dutch and German syntax. This set of inversions involves permutations which — unlike the inversion in (1)a — require little effort and sound quite natural:

(2) G --, daß unserem Nachbar etwas schreckliches
D --, dat onze buurman iets verschrikkelijks
that to-our neighbor something terrible
passiert ist
overkomen is
happened has

Something similar can be observed in passivized sentences. This phenomenon, which I will call Nominative-Dative Inversion, was a residual problem for the analysis of passive in Dutch and German vs. English presented in Den Besten (1981c). In the pertinent paper it was claimed that the distinction between syntactic and lexical passives which obtains in English (cf. Wasow 1977) is also relevant for the syntax of Dutch and German, even though most of the diagnostics that are relevant for English do not (or hardly) give the required results for Dutch and German. An account was given for the difference between English on the one hand and the continental West Germanic languages on the other hand as regards Indirect Object NPs — which do passivize in English whereas they do not in Dutch or German (with some well-defined

1. The ACC DAT order of (1)b is not completely impossible in Dutch. However, the (marked) ACC DAT order coincides with the (unmarked) ACC PP order for Indirect Object PPs, which are much more widespread in Dutch than they are in German. Therefore, such an ACC DAT construction is avoided in Dutch:

(i) Ik heb dit boek ??(aan) een goede vriend van mij gegeven
I have this book ??(to) a good friend of mine given

(For PP Objects see section 6.3.) Acceptability is considerably improved, though, if verbs like *aanbevelen* "recommend", *aanraden* "advise, recommend" and *afraden* "dissuade" are chosen, which subcategorize for Indirect Object NPs only:

(ii) a. Ik raad dit uitstapje (*aan) Uwe Majesteit van harte aan
I recommend this excursion (*to) Your Majesty warmly
b. Ik zou dit uitstapje (*aan) mijn broer willen afraden
I would this excursion (*to) my brother like-to dissuade

exceptions). The general idea underlying this solution was that Vs assign structural Case (Accusative) to the nearest NP but Oblique Case to an NP that is further removed. Thus Case Assignment will yield (3)a for English and (3)b for German and Dutch:[2]

(3) a. $[_{VP}$ V NP NP]
+acc. +obl.

b. $[_{VP}$ NP NP V]
+obl. +acc.

Since Oblique NPs may not nominativize, the differences in passivization between English and German/Dutch can be easily accounted for. Finally, it was assumed that NPs can acquire Nominative Case by moving into (NP,S) position. Such an analysis creates a problem for the description of the Dative Nominative order in examples like (4) below and (2) above:

(4) G --, daß dem Museum_{DAT} die Urne_{NOM} geschenkt worden ist
D --, dat het museum_{DAT} de urn_{NOM} geschonken is
that to-the museum the urn donated (been) has

Den Besten (1981c: 81) briefly considered the possibility of there being Nominative NPs in (NP, VP) position but immediately rejected that idea as being 'too radical a position to defend'. Nevertheless, this is the position I am going to defend in the present paper.

In sections 3 and 4, I will present an analysis for Nominative-Dative Inversion according to which NPs in Object position may acquire Nominative in situ and do not have to move to the (NP,S) position. This implies that Nominative-Dative Inversion is a misnomer and should be Dative-Nominative Inversion. Section 3 is preceded by a section on the theoretical assumptions from which I will start. These assumptions will be extended and partly changed in section 4. Section 5 will present an extension of the analysis for Nominative-Dative Inversion and section 6 contains some suggestions as to how to derive certain instances of Nominative-Accusative Inversion in Dutch and German.

The core of the analysis, which was first developed in Den Besten (1981b), is in fact a variant of Burzio's Ergative Hypothesis (Burzio 1981), as will be shown in section 4. The upshot of all this will be that the Ergative Hypothesis can provide us with a configurational account for some free word order phenomena.

2. There is no reason to believe that Oblique Case in SVO structures like (3)a will ever be realized as Dative Case in languages with morphological Case. We rather have to analyze (3)a as containing two Accusatives, the first one being structural, the second one being Oblique. However, also see the critical remarks on (6) in section 2.

I think that before I start a warning is in order: Throughout this paper I will deal with Dutch and German as if they were dialects. Whenever necessary, differences will be pointed out and whenever possible, specific arguments will be based upon phenomena present in one language but not in the other. Nevertheless, I hope I have avoided overgeneralizations.

2. Some theoretical assumptions

In order to come to grips with the phenomenon of Nominative-Dative Inversion, we need a system of Case Assignment rules for Dutch and German. As a preliminary remark, let me point out that according to the description alluded to above, when the structures in (3) were discussed, the assignment of Dative to an Indirect Object — at least if a Direct Object is present — may be regarded as being structural. At this point Dutch and German coincide. German, however, makes extensive use of lexically governed Oblique Cases which cannot be structurally assigned and are dependent upon specific lexical items which are marked for this in the Lexicon. Compare (5):

(5) Wir gedenken der Toten$_{GEN}$
We commemorate the dead

Such lexical Oblique NPs can also cooccur with Accusative Direct Objects and are ordered between the Direct Object and the verb. As for verbs like *helfen* "help" which assign Dative Case, it may well be that the pertinent Dative NPs occupy the same position as the structural Dative NPs (see below). It may not be without significance that there are still some verbs of the *helfen* type in Dutch, albeit marginally (compare Den Besten 1981c and Everaert 1982).

Now, it is not unreasonable to assume that there is one governor per structural Case. Since V is the governor for Objective/Accusative, a structural Case, a second structural governor is called for and $\bar{V}$ (or 'small VP') is the evident choice to make. Thus, we may substitute the following structures for those in (3):

(6) a. $[_{VP}[_{\bar{V}}$ V NP] NP] (English)
+acc. +obl.

b. $[_{VP}$ NP $[_{\bar{V}}$ NP V]] (German, Dutch)
+obl. +acc.

Given a structure like (6)b it is possible to analyze verbs like *helfen* in German as requiring, not: assigning, Dative NPs, which will be realized outside of the small VP. But this problem is not an urgent one, and I will leave it at this suggestion.

The structures in (6) are not a real novelty. (6)a can be found in Chomsky (1981), and as for (6)b, I have come across similar analyses for Dutch in Daalder and Blom (1976), Verkuyl (1979) and De Haan (1979), although these studies were not concerned with Case Assignment and had different reasons for deciding in favor of layered VPs. The paper by Daalder and Blom (1976) is quite interesting in this respect because they base their account upon considerations of superiority, claiming that bound anaphors require antecedents that are in a superior position. Since Indirect Objects can be antecedents for anaphoric Direct Objects, they conclude that Indirect Object NPs must be outside a small VP. However, these considerations require rephrasing in the framework of the present Binding Theory (Chomsky 1981).

Evidence for a $\bar{V}$ in Continental West Germanic can be found in data about Verb Raising. The structural description for Verb Raising in the respective languages and dialects of Continental West Germanic can be generalized as in (7) (compare Den Besten and Edmondson 1983):

(7) $X - V^n - V - Y$ $(n \geqslant 0)$.

The V^n is either raised to the left or to the right of the V to its immediate right and is adjoined to it (compare Evers 1975). Additional rules necessary to derive all possible word orders in the verbal complex in West Germanic will be disregarded here, and we will concentrate upon those dialects that are supposed to be right-adjoining (cf. Den Besten and Edmondson 1983).

A couple of Flemish dialects of Dutch allow $\bar{V}$ Raising (vide Vanacker 1970):

(8) a. --, da'k snavonds moeste [$_{\bar{V}}$ mijn kousen afdoen]
that-I in the evening had-to my stockings off-put

b. En ge zoudt nog moeten [$_{\bar{V}}$ uw eigen pintje betalen]
And you would yet have to your own beer pay

In these dialects therefore, the two objects can get separated by Verb Raising, as is also the case in the following Zürich German example (Lötscher 1978):

(9) Mer händ em Hans wele töörfen [$_{\bar{V}}$ es velo schänke]
we have the John want be-allowed-to a bike give
"We wanted to be allowed to give John a bike"

Arguments for a small VP in English could be constructed on the basis of the rule of V^n Deletion, which is triggered by Sub-Deletion, $(n \geqslant 0)$. This rule yields sentences like those in (10):

(10) a. John bought more books than Peter did [$_{V}$ e] [$_{NP}$ e records]
b. Peter [$_{\bar{V}}$ sends Mary] more flowers than John does [$_{\bar{V}}$ e] [$_{NP}$ e letters]

Compare Chomsky (1980) and (1981) for other arguments. Yet structures like (6)a have some annoying consequences in that there cannot be a unique structural definition for Direct Objects any longer, and objections have been raised against the small VP analysis for English by Czepluch (1982) who proposes an alternative.

Whatever the best analysis for English may be, the small VP seems to be acceptable in the case of German and Dutch. Returning now to (6)b, the structure proposed, we can see that the assumption of there being one governor per structural Case implies that structural Case Assignment is constrained by a condition of strict locality in the sense that the first branching node dominating the Case assigner α must also dominate the Case-receiving position β. This means that Case Assignment requires a type of government not unlike the original conception of government as can be found in Bennis and Groos (1980), an overview of Chomsky's Pisa Lectures in 1979. In order to distinguish this type of government from the present definition in Chomsky (1981), we might call it 'strict government' or 'Case government' but I will continue to use the shorter name, assuming that the above remarks will suffice to keep things apart.

The following definitions are needed:

(11) a. α *governs* β iff α minimally c-commands β and there is no $\bar{S}$-or NP-boundary between α and β.
b. α *minimally c-commands* $\beta =_{Def}$ α c-commands β and there is no γ such that α c-commands γ, γ c-commands β, and γ does not c-command α.
c. $\alpha/\gamma = [\pm N, \pm V]$, $\bar{V}$, Tense (or: INFL).

(12) α *c-commands* β iff the first branching node dominating α also dominates β (compare Reinhart 1976).

These definitions allow the following Case Assignment rules:

(13) If α governs NP_i, NP_i becomes
Nominative , if α = Tense (or: INFL)
Objective , if $\alpha = V$
Oblique , if $\alpha = P$, $\bar{V}$, or a marked verb

('Objective' can be equated with Accusative Case and 'Oblique' corresponds with Dative Case in the unmarked case.) Finally, there is the Case Filter, barring any N that does not bear Case:

(14) *N, if N does not bear Case.

Note that the above set of rules does not require strict adjacency between the governor and the Case-receiving NP (compare Stowell (1981) and Chomsky (1981) for strict adjacency). It is very difficult to make strict adjacency work for Dutch and German syntax in view of examples like the following Dutch one (which can be easily transposed into German) —even if one were to make use of Stowell's dual verbal position inside the VP (Stowell 1981):

(15) --, dat ik [$_{VP}$ Karel$_{DAT}$ gisteren die uitgave$_{ACC}$ per
that I Charles yesterday that publication by
luchtpost toegestuurd heb]
airmail sent have

Strict adjacency may be required for Exceptional Case Marking, as is pointed out in Chomsky (1981) — although we need a refined definition to cover cases like the following:

(16) G --, daß er [$_{S}$ den Johann$_{ACC}$ [$_{VP}$ ein Lied singen]] hörte
that he John a song sing heard

but I will not go into this matter here.

I would like to conclude this section by making a few additional assumptions about Tense/INFL and past participles.

It is a well-known fact that it is very difficult to find evidence in favor of an INFL or AUX in either Dutch or German syntax. I will therefore assume that there is no INFL in Dutch and that the Case-assigner for Nominative is COMP. I will not have to change my Case Assignment rules, though, since we may assume that a feature [+Tense] is present in the COMP of finite clauses. Here I follow an analysis which was first proposed in Den Besten (1978) (and repeated in Den Besten (1981a)). Arguments can be found in Den Besten (1983: App. II). According to this analysis the rule of Finite Verb Preposing, which applies to most root sentences and to some subordinate clause types, puts the finite verb in the position of the [+Tense] COMP, thereby precluding the presence of a lexical complementizer in this position, as is nicely shown by the following pair of subordinate clauses:

(17) a. G --, als *ob* die Kinder nicht geschrien *hätten*
as if the kids not cried had
b. G --, als *hätten* die Kinder nicht geschrien *e*

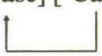
(Similarly for Dutch.) I do not want to conclude from what is said above that the finite COMP in Dutch and German is in fact the INFL of these languages (as does for instance Platzack (1983) who speaks about CONFL), but suffice it to say that the feature [+Tense] in COMP will do for the rule assigning Nominative in Dutch and German.

As for past participles, I will assume that they are not capable of assigning Case, in accordance with Chomsky (1981). Whenever a Direct Object is governed by a past participle it must be moved into the Case-aquiring Subject position, unless it can receive Case in a different way:

(18) NP INFL BE V+*ed* NP
[+Case] [-Case]

The schema in (18) is meant for English, the corresponding schema for Dutch and German should be as follows:

(19) G COMP NP NP V+*t* WERDEN (D: ...V+*t/d* WORDEN)
[+Case] [-Case]



(For Move NP in an SOV language, see Den Besten (1981c))

As is commonly assumed, the participle is not a Case-assigner because it is not a V. There are two ways to express this: Either the past participle is an adjective or it is an intermediate category [+V] (compare Rouveret and Vergnaud (1980) and Chomsky (1981)). In Dutch arguments can be found in favor of this intermediate category [+V]. These arguments concern the above-mentioned rule of Verb Raising (Evers 1975). The Standard Dutch instantiation for schema (7) is given in (20):

(20) X — V — V — Y ⇒ 1 — *e* — 3+2 — 4

This rule generates VO strings on the basis of an underlying OV word order:

(21) --, dat hij ooit eens met jou heeft proberen te praten
that he once with you has try to talk

Participles seem optionally to obey rule (20):

(22) a. --, dat er hier ongelukken gebeurd zijn / zijn gebeurd
that there here accidents happened have/have happened
b. --, dat zij de hele ochtend gedweild heeft/heeft gedweild
that she the whole morning mopped has /has mopped
c. --, dat het voorstel veranderd moet worden / moet worden
that the proposal changed must be / must be
veranderd
changed

However, if a past participle were a V, the following paradigm would pose a problem, since rule (20) would the generate both (23)a and (23)b

and the ungrammatical (23)c, whereas it would not be able to generate the grammatical (23)d:[3]

(23) a. --, dat hij het boek *toegestuurd gekregen heeft*
that he the book sent obtained has
b. --, dat hij het boek *toegestuurd* heeft *gekregen*
c. *--, dat hij het boek heeft *gekregen toegestuurd*
d. --, dat hij het boek heeft *toegestuurd gekregen*

If past participles constitute a special category [+V], though, they may obey syntactic rules of their own so that the examples in (22) and (23) can be correctly characterized.

Finally, note that the rule inverting auxiliaries and past participles does not apply to adjectives, not even when their morphology is participial:

(24) a. --, dat zij al wakker is / *is wakker
that she already awake is / *is awake
b. --, dat hij op Marieke verliefd is / *is verliefd
that he with Mary in-love is / *is in-love

(*Verliefd* = stem *verliev* plus participial *-d.*)

In Den Besten (1981c) it was incorrectly inferred from data like (22) and (24) that past participles are verbs. However, such data only shows that past participles are not adjectives. We may therefore stick to the conclusion that past participles belong to a special subcategory [+V].

3. Nominative-Dative inversion

3.1. A hypothesis

As has already been noted in section 1., there are sentences with

3. I have to take recourse here to the so-called *krijgen* "get" Passive, since the following construction can hardly be called grammatical in Standard Dutch (unlike German or many Dutch dialects):

(i) --, dat het museum nu eindelijk geopend$_3$ geworden$_2$ is$_1$
that the museum now finally opened been has

Examples like (i) are considered dialectal or oldfashioned (or 'Belgian') and the passive perfect is expressed by means of the auxiliary *zijn* "be". Only if one wants to make oneself very clear will a construction as in (i) be used, for instance in order to indicate that one is referring to a process and not to a state; *geopend zijn* can be either a syntactic (verbal) passive ("have been opened") or a lexical adjectival one ("be open") compare Den Besten (1981c). However, this marked construction permits the same range of grammaticality judgements as is shown by (23): The orders 321, 312 and 132 are grammatical, 123 is ungrammatical.

intransitive verbs in German and Dutch which evidence an inversion of the Subject (the Nominative) and the Indirect Object (the Dative). The same applies in the case of a passivized ditransitive verb. Compare the following examples:

(25) a.G --, daß deine Geschichten$_{NOM}$ meinem Bruder$_{DAT}$ nicht
D --, dat jouw verhalen$_{NOM}$ mijn broer$_{DAT}$ niet
that your stories (to) my brother not
gefielen
bevielen
pleased

b.G --, daß meinem Bruder$_{DAT}$ deine Geschichten$_{NOM}$ nicht
G --, dat mijn broer$_{DAT}$ youw verhalen$_{NOM}$ niet
gefielen
bevielen

(26) a.G --, daß dieses Buch$_{NOM}$ meinem Onkel$_{DAT}$ zugeschickt
D --, dat dit boek$_{NOM}$ mijn oom$_{DAT}$ toegestuurd
that this book (to) my uncle sent
worden ist
is
been has

b.G --, daß meinem Onkel$_{DAT}$ dieses Buch$_{NOM}$ zugeschickt
D --, dat mijn oom$_{DAT}$ dit boek$_{NOM}$ toegestuurd
worden ist
is

Note that Dutch freely makes use of such sentences, even though there is hardly any morphological case left in this language.[4]

The following labelled bracketings represent two hypotheses about the structure of sentences like (25)b and (26)b. For ease of exposition only German lexical items are inserted in these structures:

4. Morphological Case can be found in frozen expressions such as *destijds* "at the time", *indertijd* "id.", and *ter* + nominalization "by way of + nominalization". And a limited amount of genitive articles is still allowed in written speech. Note that the grammaticality of the DAT NOM order in the Dutch examples in (25) and (26) cannot be explained on the basis of the observation that usually the Dative refers to persons, and the Nominative to objects. Even if both NPs are personal, it is possible to get Nominative-Dative Inversion:

(i) D --, dat mij/mijn vader$_{DAT}$ jouw broer$_{NOM}$ niet aanstaat
that me/my father your brother not likes

It goes without saying that such inversions are far from perfect and that they can be considerably improved if either the Subject or the Object is in the plural. Yet in principle constructions like (i) are grammatical.

(27) a. $[_S\ DAT_j\ NOM_i\ [_{VP}\ e_j\ [_{\bar{V}}$ nicht gefielen]]]
b. $[_S\ DAT_j\ [_{VP}\ e_j\ [_{\bar{V}}\ NOM_i$ nicht gefielen]]]
(28) a. $[_S\ DAT_j\ NOM_i\ [_{VP}\ e_j\ [_{\bar{V}}\ e_i$ zugeschickt worden ist]]]
b. $[_S\ DAT_j\ [_{VP}\ e_j\ [_{\bar{V}}\ NOM_i$ zugeschickt worden ist]]]

Structure (27)a embodies the claim that the Nominative is base-generated in Subjects position, i.e. the (NP,S) position. According to this idea the Dative is inverted with the Subject by means of some sort of Topicalization rule. The labelled bracketing in (27)b represents the alternative hypothesis to the effect that the Nominative (the Subject) is base-generated in Direct Object position, i.e. in the (NP,$\bar{V}$) position. The Dative on the other hand is put into Subject position by Move NP. Both hypotheses reappear in (28)a and (28)b. According to (28)a, NP_i has been moved out of Direct Object position into Subject position, while the Dative has been 'topicalized'. According to (28)b the logical object stays in Direct Object position, where it will become a Nominative, while the Dative shows up in Subject position by means of Move NP.

The first hypothesis, i.e. the hypothesis represented by (27)a and (28)a, is the position taken in Koster (1978: 3.2.2.3) and Den Besten (1981c: 81). It is based upon the perhaps somewhat simple-minded asssumption that Subjects are Subjects and so should be generated in Subject position —an assumption which is not completely incomprehensible given the syntax of languages like English.

The second hypothesis comprises two claims: A) a Nominative may show up in Object position, where it has started in D-Structure, B) a Dative may show up in Subject position. The former claim is strongly reminiscent of the Ergative Hypothesis (Burzio 1981). We will come back to this in section 4. The latter claim may be false in that there does not need to be an (NP,S) position in such structures or because the (NP,S) position may stay empty. These claims will be investigated in section 3.2 and section 3.3 respectively.

3.2 The Nominative in (NP,$\bar{V}$) position?

The hypothesis that Nominatives can appear in Direct Object position can be tested by means of the rule of *was für* Split (G) and *wat voor* Split (D) respectively. However, a digression about the syntax of *was für/wat voor* NPs is in order.

The syntax of the Dutch *wat voor* NPs is discussed in Bennis (1983). As far as I can see, his arguments and conclusions carry over to German. Consider the following examples:

(29) a.D *Wat voor romans* heeft hij geschreven?
what for novels has he written?
"What kind of novels has he written?"
b.D *Wat* heeft hij *voor romans* geschreven?

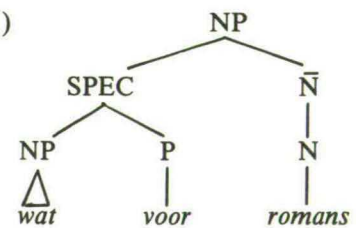
A sequence *wat voor N* constitutes an NP. For instance the Direct Object in (29)a may become a Nominative in a passive structure:

(30) D *Wat voor romans* zijn er door hem geschreven?
what for novels have-been there by him written?

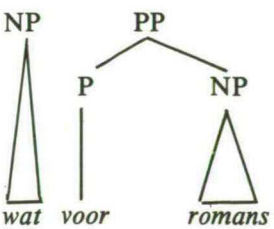
The fact that *wat voor romans* is now a Nominative can be deduced from the observation that the finite verb is plural and therefore must agree with a plural Nominative. The plural is expressed in the morphology of the noun *romans* "novels". Since *zijn* "are, have been" agrees with the plural *romans* and not with the singular noun *wat* "what", we may conclude that *wat voor* is a lexically frozen specifier expression and that the noun following this specifier is the head of the pertinent NP. This argument can be replicated for German, though this will not be done here. The conclusion that *wat voor N/was für N* is not an NP consisting of a nominal head *wat/was* followed by a PP complement *voor/für NP* is corroborated by the observation that in German the 'preposition' *für*, which usually assigns Accusative Case, does not govern the Case expressed on the linguistic material following it, which consists of an optional indefinite specifier *ein* "a", an optional sequence of one or more APs and an obligatory noun plus possible postnominal complements. The Case expressed will aways be the Case required by the element the *was für* NP is governed by. For further arguments I refer the reader to Bennis (1983).

The lexically frozen specifier *wat voor/was für* permits subextraction of *wat/was*, as can be seen in (29)b. In the paper quoted above, Bennis (1983) claims that this is due to a two step restructuring process which transforms an underlying structure like (31) into two separate constituents, an NP *wat* and a PP *voor romans*:

(31)



⇒ (32)



Considerations which may lead to a restructuring analysis relate to constraints on movement rules. Subextraction of the NP *wat/was* out of

the larger NP *wat voor N/was für N* would violate both the Left Branch Constraint and Subjacency (the pertinent bounding nodes being NP and S). Furthermore, Bennis observes that in the case of *wat voor* Split in Dutch the remnant *voor X* may undergo PP Extraposition:

(29) b.' *Wat* heeft hij geschreven *voor romans*?

Such examples are certainly not ungrammatical, although I think they require a question mark. Yet, since I do not know whether I can accept all of Bennis' arguments and since I believe his ideas can be implemented in a different way, I stick to the subextraction analysis for *wat voor* and *was für* Split.

I will assume that extraction of *wat/was* will change the status of the remnant NP from [+N, -V]^3 into [-V]^3, due to the presence of the preposition *voor/für* which now turns into a semi-governor. The constituent [-V]^3 being an NP and a PP at the same time is now eligible for the rule of PP Extraposition in Dutch. Its dual status may explain why such constructions are not completely acceptable. The switch from [+N, -V]^3 into [-V]^3 can explain why no Subjacency effects are found. And finally the Left Branch Condition is suspended because the trace of *wat/was* is licenced by the preposition *voor/für*. This means that the trace of *wat/was* is subject to the ECP (for this notion, see Chomsky (1981)). However, it may be surmised that the preposition *voor/für* alone will not suffice as a proper governor, since it is a weak governor which does not assign Case. This supposition is confirmed by the distribution of *wat voor* and *was für* Split.

Subextraction of *wat/was* is permitted on the condition that the pertinent NP be strictly governed by V. This can be deduced from the following data:

(33)a. SU: **Wat* hebben *voor mensen* je moeder bezocht?
**Was* haben *für Leute* deine Mutter besucht?
what have for people your mother visited?
"What sort of people have visited your mother?"

b. *Wat voor mensen* hebben je moeder bezocht?
Was für Leute haben deine Mutter besucht?

(34)a. IO: **Wat* heb jij *voor mensen* je stuk gestuurd?
**Was* hast du *für Leuten* deinen Aufsatz geschickt?
what have you for people your paper sent?
"What kind of people have you sent your paper to?"

b. *Wat voor mensen* heb jij je stuk gestuurd?
Was für Leuten hast du deinen Aufsatz geschickt?

(35)a. DO: *Wat* heb jij in Italië *voor musea* bezocht?
Was hast du in Italien *für Museen* besucht?
What have you in Italy for museums visited?
"What sort of museums did you visit in Italy?"

b. *Wat voor musea* heb jij in Italië bezocht?
Was für Museen hast du in Italien besucht?

(36) a. Pred. N: *Wat* zijn dat *voor groentes*?
Was sind das *für Gemüse*?
what are that for vegetables?
"What kind of vegetables are these?"

b. *Wat voor groentes* zijn dat?
Was für Gemüse sind das?

As can be seen, the Dutch *wat voor* and the German *was für* examples are completely parallel as to grammaticality judgements. As for the starred sentences, it should be noted that the examples in (34)a are slightly better than those under (33)a, although certainly not as good as those in (35)a or (36)a. Other examples with split Indirect Objects which I have tried to construct, though, sound equally bad or even worse, as is the case in (37):

(37) D **Wat* zou je nou *voor mensen* zo'n plaat kunnen
what would one for people such a record can (inf.)
geven?
give
"To what kind of people could one give such a record?"

Again, *Wh*-Movement of the full NP is grammatical. Finally, note that the ungrammaticality of the examples in (34) can not be blamed upon a condition to the effect that a stranded *voor* NP should be adjacent to the verb, since stranded Direct Object *voor* NPs can be separated from the verb by other arguments:

(38) a.D *Wat* heb je *voor boeken* naar Groningen gestuurd?
what have you for books to Groningen sent?

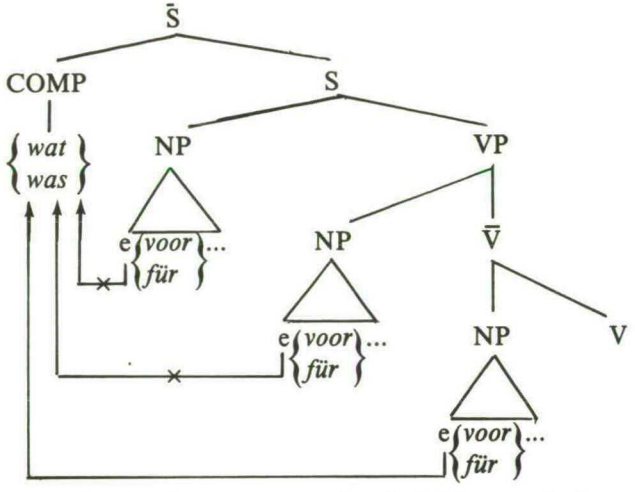
b.D *Wat* hebben zij *voor cadeaus* aan Karel gegeven?
what have they for gifts to Charles given?

Thus, the difference between (34)a on the one hand and (35)a and (36)a on the other hand may be attributed to the different hierarchical positions for Indirect Object NPs and Direct Objects/Predicate Nominals respectively.[5]

5. Intransitives with Dative Objects in German yield mixed results if *was für* Split is applied to the Indirect Object NP. Some accept (i.a) and (ii.a) others do not:

Tree diagram (39) is a schematic representation of the above data:

(39)



This schema clearly demonstrates the fruitfulness of the small VP hypothesis. Furthermore, it shows that the preposition *voor/für* does not suffice to licence the trace of *wat/was*. Apparently, another proper governor must have access to that preposition. We might say that (35)a is grammatical because the V properly governs the trace of *wat/was* through the head of the new category [-V]³, i.e. through the P *voor/für*. We may assume that this is possible because V governs the maximal projection dominating *voor/für*, i.e. NP/[-V]³. Now, if government may trickle down to the head of [-V]³, the gap in [-V]³ will be licenced by a

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(i) a. ?*Was* hast du *für Leuten*$_{DAT}$ geholfen?
what have you for people helped?
"What sort of people did you help?"
b. *Was für Leuten*$_{DAT}$ hast du geholfen?

(ii) a. ?*Was* bist du in Italien *für Leuten*$_{DAT}$ begegnet?
what have you in Italy for people met?
"What sort of people have you met in Italy?"
b. *Was für Leuten*$_{DAT}$ bist du in Italien begegnet?

Several factors may be involved here. The pertinent NPs may be sisters of $\bar{V}$, which may explain why some speakers find the subextractions in (i.a) and (ii.a) illicit, though better than the subextraction in (34)a. Since $\bar{V}$ and V cannot easily be distinguished in the above examples, this may explain why everybody considers them better than (34)a. However, is is also possible that some speakers analyze Datives with verbs like *helfen* and *begegnen* as lexical Oblique Cases assigned under $\bar{V}$. If so, the Datives will be strictly governed by V, which may explain why certain speakers fully accept (i.a) and (ii.a).

chain of governors (V,P). Such a chain cannot be constructed in the case of (33)a since the relevant higher governor of the trace of *wat/was* does not properly govern [-V][3]. In this respect the data in (34) constitutes a riddle. Example (34)b shows that the trace of an Indirect Object NP is properly governed, either by $\bar{V}$ or — if we follow the definition of government in Chomsky (1981) — by V. Thus one would expect (34)a to be grammatical. However, they are only marginally acceptable, if at all. It is imaginable that $\bar{V}$ cannot become member of a chain ($\bar{V}$,P) because $\bar{V}$ and P have a different status, $\bar{V}$ being a category of the type $\bar{X}$ and P being a category of the type X. On the other hand the reason why (V,P) cannot constitute a chain of governors in the case of (34)a may be that V does not strictly govern the relevant [-V][3]. I would like to leave the matter at this suggestion and now turn to the question of whether Nominatives (Subjects) may show up in (NP,$\bar{V}$) position.

Given the above discussion it will not come as a surprise that *wat voor/was für* Split is ungrammatical if the Nominative precedes the Dative, whereas it is grammatical if the Nominative follows the Dative. This can be predicted on the basis of the hypothesis indicated in (27)b and (28)b. Consider the following Dutch data:

(40) a. **Wat* zijn (er) *voor rare verhalen* jouw
what have-been (there) for strange stories your
vader verteld?
father told?
"What sort of strange stories have been told to your father?"

b. *Wat* zijn (er) jouw vader *voor rare verhalen* verteld?

c. *Wat voor rare verhalen* zijn (er) jouw vader verteld?

(41) a. **Wat* zouden (er) *voor boeken* Peter nou bevallen?
what would (there) for books Peter now please?
"Wat sort of books would please Peter, I wonder."

b. *Wat* zouden Peter nou *voor boeken* bevallen?

c. *Wat voor boeken* zouden Peter nou bevallen?

Thus, we may conclude that Nominatives can show up in Object position. This need not be completely surprising in the case of passive structures like (40). However, the results as regards verbs like *bevallen* en *overkomen* (in (41) and (2) respectively) are not a complete novelty either. These verbs have ergative (nonagentive) Subjects in the sense of Burzio (1981). And Koster (1978: 3.2.2.3) who defended the hypothesis corresponding to (27)a and (28)a had to assign the pertinent Nominatives the functional label DO in order for his account to work. For a discussion of the theory, see section 4 below.

Finally note that also intransitives without Indirect Objects allow

Nominatives in (NP,$\bar{V}$) position. This will certainly be true in existential sentences. The following Dutch sentence contains an ergative verb, and *wat voor* Split is grammatical, as is predicted:

(42) *Wat* zijn *(er) *voor dingen* gebeurd?
what have *(there) for things happened?
"What kind of things have happened?

I will assume that in this sentence the obligatory dummy locative *er* "there" licences the empty (NP,S) position most probably from a clitic position immediately behind the COMP which contains *zijn* "are". Although German always drops the corresponding expletive *es* "there" in enclitic position (compare the paper by Safir in Toman (1985)), a direct translation of (42) sounds less felicitous (compare (43)a). However, whenever extra material is inserted between the finite verb and the stranded *für* NP, the sentence improves, as is shown in (43)b, c, d:

(43) a. ??*Was* sind *für Sachen* passiert?
what have for things happened?
b. *Was* sind da /hier *für Sachen* passiert?
what have there/here for things happened?
c. *Was* sind gestern *für merkwürdige Sachen* passiert?
what have yesterday for weird things happened?
d. *Was* sind hier denn gestern eigentlich *für Sachen*
what have here then yesterday actually for things
passiert?
happened?

(*Da* in (43)b need not be an expletive, but it may be one.)

As is predicted, nonergative (agentive) intransitive verbs yield less felicitous results with *wat voor/was für* Split:

(44) a.D ?**Wat* hebben (er) eigenlijk *voor mensen* geprotesteerd?
What have (there) actually for people protested?
"What kind of people actually protested?"
b.D *Wat voor mensen* hebben (er) eigenlijk geprotesteerd?

Notice that the optional presence of *er* 'there' need not imply that *voor mensen* is not in Subject position, since *er* is assumed to be in an enclitic position on COMP. *Er* is allowed even if the indefinite Subject is followed by two Object NPs. Nevertheless, examples of the type are not completely out (compare the remarks about split Indirect Objects above). But they are certainly not as good as examples with ergative verbs. Thus I conclude that wavering judgements as regards (44)a do not necessitate a change in the hypothesis we have tested in this section.

3.3. The Dative in (NP,S) position?

Arguments to the effect that Datives may show up in (NP,S) position are more difficult to construct. I do not know of any based upon the syntax of German. Thus, I have to rely completely upon Dutch data in this section.

As has been argued in section 3.2, indefinite nonagentive NPs may show up in DO position. In that case Dutch requires an expletive element *er* "there" to licence the Subject gap:

(45) --, dat *(er) iets raars gebeurd is
that *(there) something strange happened has

If this analysis of the syntax of *er* with ergative verbs is correct, the optionality of *er* in the following examples can be explained on the assumption that the Dative may move into Subject position:

(46) a. --, dat (er) mijn oom iets heel moois
that (there) my uncle something very beautiful
given will be
gegeven zal worden

b. --, dat (er) Karel iets raars overkomen is
that (there) to-Charles something strange happened has

A possible counterargument against this analysis can be found in De Haan (1979: 4.4.3.) where De Haan deals with Koster's hypothesis concerning the syntax of Nominative-Dative Inversion. His arguments are restricted to passive constructions but they can be replicated for ergative ones.

De Haan's arguments are based upon the syntax of R-Movement, a rule which can move a so-called R-pronoun (for instance *er* 'there = it') out of a PP (compare Van Riemsdijk 1978). Consider the following examples:

(47) a. --, dat het boek er_i Mary e_i voor werd gegeven
that the book it_i Mary e_i for was given
(De Haan 4, (144b))

b. *--, dat er_i het boek Mary e_i voor werd gegeven
that it_i the book Mary e_i for was given
(De Haan 4, (144c))

De Haan argues that the Subject position constitutes a non plus ultra for the R-pronoun. Now consider the following example:

(48) --, dat er_i Mary het boek e_i voor werd gegeven
that it_i Mary the book e_i for was given

De Haan concludes from this example that (a) the Subject phrase *het boek* is not in (NP,S) position but in DO position, (b) the Indirect Object phrase is still in IO position, and (c) there is no Subject position in (48). These arguments are directed against Koster (1978) who proposed an analysis according to which the Indirect Object phrase can be moved across the Subject position in sentences like (48); (cf. (28)a). However, they also constitute a problem for my analysis according to which the Dative phrase *Mary* in (48) may show up in Subject position.

Yet I think this problem is only apparent. The syntax of R-pronouns is much more complicated than is argued in De Haan (1979). I refer the reader to Bennis (1980). Furthermore, if we follow De Haan (1979) and Van Riemsdijk (1978) in assuming that there is an R-landing site between the Subject and the Indirect Object position, the following examples demonstrate that the Dative may show up in (NP,S) position:

(49) a. --, dat Mary er_i het boek e_i voor gegeven is
b. --, dat Mary er_i een mooi boek e_i voor gegeven is
that Mary it_i a nice book e_i for given has-been

Example (49)b is also grammatical in the order ... *er* IO SU ..., of course. And I have to add that I strongly prefer an indefinite Subject in (48). Sentence-initial R-pronouns seem to be licenced by indefinite Subjects in the first place.

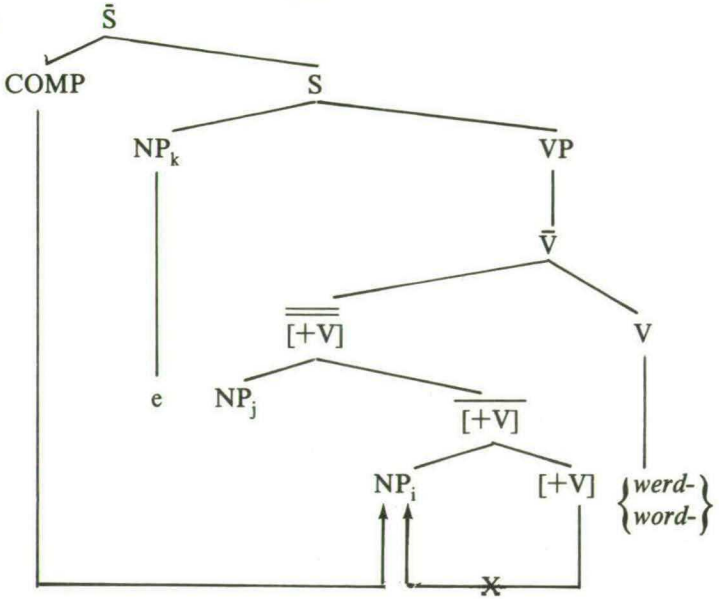
The upshot of all this is that we may accept the conclusion that Dative NPs may show up in Subject position.

4. Chain-government and the Ergative Hypothesis

The theory as sketched in section 2 does not allow the nominativization of an NP in (NP,$\bar{V}$) position, because such an NP is not governed by Tense (COMP). Therefore the theory has to be changed in order to be able to incorporate the analysis proposed in section 3.2.

Consider the structure for (26) in which I will leave out all lexical material except *werden/worden*. To simplify the structure I have also left out the perfective auxiliary. The arrows indicate Case Assignment:

(50)



The dative NP_j (the IO) is generated as a sister of the [+V][1] and receives its Case from that constituent. This requires a slight extension of the Case Assignment rules and the definition of Government in section 2. The node [+V] governs NP_i but cannot assign Case to it. Now there are two options for NP_i to receive Case: Either NP_i is moved into Subject position, where it will become Nominative if COMP (Tense) assigns Case there, or NP_i acquires this Case in Object position, while NP_j moves into (NP,S) position. In the former case (26)a is derived, in the latter case it is (26)b that is derived. It follows from the analysis that the term Nominative-Dative Inversion which I have frequently used above is a misnomer. It should be: Dative-Nominative Inversion. This is in accordance with the fact that DAT NOM is the unmarked order (compare Lenerz (1977)).

According to the definition of Government in section 2, NP_i is governed by [+V] but not by *werden/worden* 'be' (V) or Tense. However, Tense (COMP) governs *werden/worden* and *werden/worden* governs [+V]. This observation permits the following addition to the theory:

(51) a. If NP_i is governed by a category α which cannot or may not assign Case, NP_i will acquire its Case from the first Case-assigner up by which it is chain-governed.

b. α *chain-governs* β iff α governs γ_1, γ_1 governs γ_2, ... , γ_{n-1} governs γ_n, and γ_n governs β ($n \geqslant 1$).

In (50) NP_i is chain-governed both by *werden/worden* (V) and by Tense (COMP). However, *werden/worden* cannot be a Case assigner and therefore the chain-governor Tense (COMP) will assign Case to NP_i in situ.

The reason why *werden/worden* cannot be a Case assigner will become clear if we consider the syntax of passives in structures of control:

(52) a.D *Hij_i hoopt $[_S$ e $[_{VP}[_{\bar{V}}$ hij_i/hem_i niet ontslagen te zullen
he_i hopes e he_i/him_i not fired to will
worden]]]
be

b.D Hij_i hoopt $[_S$ $PRO_i[_{VP}[_{\bar{V}}$ e_i niet ontslagen te zullen
he_i hopes PRO_i e_i not fired to will
worden]]]
be

One could claim, given the ungrammaticality of (52)a, that this is not due to illicit Case marking of the Direct Object by *worden* "be", which is not a Case assigner at all, but to the control properties of *hopen* "hope" which have been violated in the pertinent structure. Therefore, one might claim that *worden* has assigned Case (probably a Nominative) to PRO_i in Object position, and that the PRO_i has been moved into Subject position afterwards in order to escape government at S-structure. However, it is highly improbable that PROs can be Case-marked in German or Dutch. If this were possible it should also be possible to get Dative PROs in (NP,S) position, while keeping a Nominative NP in Object position. But such constructions are completely impossible:

(53) D *Hij hoopt $[_S$ PRO_{DAT} $[_{VP}$ e dat $boek_{NOM}$ toegestuurd te
he hopes PRO_i e_i that book sent to
worden]]
be

The sole way to express the content of this sentence would be to use the *kriegen/krijgen* "passive" construction of German and Dutch, which has already been exemplified in the sentences under (23):

(54) D Hij hoopt $[_S$ PRO $[_{VP}$ dat $book_{ACC}$ toegestuurd te krijgen]]
he hopes PRO that book sent to get

We may therefore conclude that *werden/worden* is not a Case assigner. This is in accordance with the observation that the corresponding copula *werden/worden* "become" does not really act as a Case assigner either. This verb seems to assign Case given sentences like (55) in German:

(55) Er versuchte [$_S$ PRO [$_{VP}$ ein guter $Arzt_{NOM}$ zu werden]]
he tried PRO a good doctor to become

However, that assumption is contradicted by the data in (56) and (57):

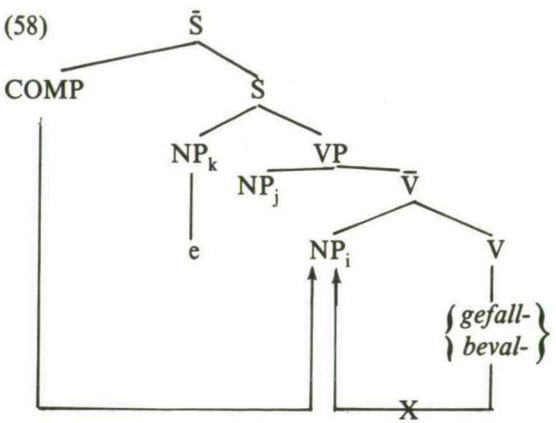
(56) Er_{NOM} wird *ein guter* $Arzt_{NOM}$
he becomes a good doctor

(57) Ich habe ihn_{ACC} *einen guten* $Arzt_{ACC}$ werden sehen
I have him a good doctor become see

Apparently the Case of the Predicate Nominal is assimilated to the Case of the corresponding Subject, which looks like Case transmittance. The occurrence of a Nominative Predicate Nominal in the infinitival clause in (55) does not have to be due to *werden*. A rule of a different type will account for this.

Let us now turn to the ergative verbs in (25) and (2). The derivation of examples like (25) will be straightforward if we allow verbs like *gefallen* "please" in German and *bevallen* "please" in Dutch to subcategorize for two NPs, while not assigning Case to (NP,$\bar{V}$) and withholding a Θ-role from (NP,S) — similarly to what happens in passive constructions like (50):

(58)



In this structure NP_j is marked Dative by $\bar{V}$. *Gefallen/bevallen* is not a Case-assigning Verb. Therefore Tense (COMP) has two options: it can assign Nominative either to NP_k or to NP_i. In the former case NP_i has to move into (NP,S) position in order to acquire Case. In the latter case NP_i can stay in (NP,$\bar{V}$) position and receive Case in situ, whereas NP_j may be moved into Subject position.

Note that neither in the case of structure (50) nor in the case of structure (58) can we prevent the generation of Case-marked, A-bound traces. This is certainly true for the traces of the Indirect Object NPs in

the respective structures. Whether Oblique Case is assigned at D-structure or at S-structure, the trace of NP_j will be [+obl.]. These options are also open for NP_i and its trace, although it will be possible to generate S-structures with a Case-less t_i. Note that the descriptive options can be reduced if we disallow Case Assignment to traces and subsequent Case transmittance from the trace to its antecedent. It follows that Oblique Case must be assigned before Move NP applies. As for NP_i and its trace, the description under consideration can be organized in such a way that the trace of NP_i will be either Case-less under all circumstances (by restricting Nominative Assignment to S-structure) or Case-marked under all circumstances (by assigning Nominative at D-structure and by disallowing Case Assignment to nonlexical NPs). One could, of course, try to exclude Case-marked traces by an ad hoc condition on Move NP to the effect that this rule may not leave behind a copy of a Case on the trace of a Case-marked NP moved to another argument position. This condition can only be motivated with reference to the requirement that $\bar{A}$-bound traces and only $\bar{A}$-bound traces be Case-marked. However one may wonder whether variables need to be Case-marked at all, since they are also defined as being $\bar{A}$-bound. Now if we restrict the definition of variables to the latter requirement, we can either allow Case-marked A-bound traces or exclude Case-marked traces altogether. For a different view of the matter, see Van Riemsdijk and Williams (1981: 209) where they comment upon an earlier paper of mine on NP inversions (Den Besten 1981b).

Now in order to finish my description of Nominative-Dative Inversion (or rather Dative-Nominative Inversion), one more thing must be said. It will be clear that a parameter is involved. Languages may differ as to whether they obey the normal Case Assignment rules (as in (13)) as well as Case Assignment via chain-government (as in (51)a) or only the normal Case Assignment rules. Thus Case Assignment by the rules in (13) is universal, whereas the parameter pertains to Case Assignment via chain-government. Following current practice, we might give it a name, let us say the Chain-Government Parameter, and even give it an abbreviation, CGP:

(59) *The Chain-Government Parameter* (CGP)
Languages may differ as to whether they choose (51)a or not.

German and Dutch will be among the languages that choose (51)a. English will certainly be in the class of languages that do not. Although German/ Dutch and English differ in basic word order, I do not believe that word order has anything to do with it, since two other SVO languages as different as Italian and Icelandic may also be in the class of

languages choosing (51)a, together with the SOV languages German and Dutch. But I am aware of the fact that this implies that Burzio's account of the ergative phenomenon in Italian as well as his account for the distribution of the auxiliaries *essere* and *avere* must partly be changed if we want to assimilate his data to my analysis of Case Assignment.[6]

As I have indicated at several points in this paper, my treatment of Nominative-Dative Inversion is related to the Ergative Hypothesis proposed by Burzio (1981) who makes use of ideas of Perlmutter's (i.a. Perlmutter 1978). My solution for Nominative-Dative Inversion involves verbs that (a) subcategorize for Direct Object NPs, (b) do not assign Case to them, and (c) do not Θ-mark the (NP,S) position, in brief: ergative verbs. Furthermore, these verbs do not have agentive subjects nor do they passivize — as is predicted. Thus, they form a proper subset of the class of ergative (or: unaccusative) verbs.

Yet two differences from Burzio (1981) should be noted. First, as was already hinted at above, Burzio has a different way of assigning Nominative to the ergative Subject. Secondly, the difference between verbs taking ***hebben*** (D)/ ***haben*** (G) "have" and those taking ***zijn*** (D)/***sein*** (G) "be" as pefective auxiliaries is not as clearcut as the difference between *avere* and *essere* verbs in Italian. There is a clear tendency for

6. Icelandic is discussed in Andrews (1976). His examples demonstrate that there can also be Nominative-Dative Inversion in SVO languages. Compare the following data taken from Andrews (1976):

(i) a. þeir seldi honum$_{DAT}$ drengina$_{ACC}$
they sold to-him the-boys

b. drengirnir$_{NOM}$ voru seldir (masc.nom.pl.) honum$_{DAT}$
the-boys were sold to-him

c. honum$_{DAT}$ voru seldir (masc.nom.pl.) drengirnir$_{NOM}$
to him were sold the-boys

Note that (i.c) is not a case of Topicalization. Such an analysis requires an extra rule of Subject Postposing, since Topicalization of ***honum*** in (i.b) yields the sequence ***honum drengirnir seldir***. Furthermore, the same type of inversion can be observed in Exceptional Case Marking complements, which — as Andrews argues — do not allow Topicalization:

(ii) a. ég tel drengina$_{ACC}$ hafa verið selda (acc.) honum$_{DAT}$
I believe the-boys to-have been sold to-him

b. ég tel honum$_{DAT}$ hafa verið seldir (nom.) drengirnir$_{NOM}$
I believe to-him (to) have been sold the-boys

Quite surprisingly, the NP in (NP, VP) position is Nominative and not Accusative. Thus we need a different set of Case Assignment rules than the ones required for German and Dutch, and it may well be the case that (i.c) does not involve Chain Government.

ergative verbs in German and Dutch to take *zijn/sein* (as is the case with the Dutch verbs *arriveren* "arrive", *komen* "come", *gaan* "go" and *smelten* "melt") and for intransitives to choose *hebben/haben* (as do for instance the Dutch verbs *telefoneren* "telephone" and *rennen* "run"). Furthermore, verbs of locomotion switch from *hebben/haben* to *zijn/sein* if they are combined with directional adverbials (as do for instance the Dutch verbs *rennen* "run" and *lopen* "walk"). Nevertheless, there are some exceptions. Thus the German verb *gefallen* "please" — which was used as an example for ergative verbs in the preceding paragraphs — chooses *haben*, while its Dutch counterpart *bevallen* wavers between *hebben* and *zijn*. I will not go into an analysis of the distribution of *hebben/haben* and *zijn/sein* here, and so I will leave the matter at the above observations.

To return to the ergative verbs as such, the grammar for ergative verbs in German and Dutch we have dealt with in the present section comprises the following modules:

(60) a. Case Assignment (parametrized)
b. Move NP
c. A (partially implicit) theory about Θ-marking

(60)a has been discussed above and (60)b will be dealt with below, but (60)c deserves some discussion.

It has been noted by Burzio (1981: 40) that the semantic role of Patient or Theme can be assigned to Direct Objects as well as to ergative Subjects, which are in fact underlying DOs. Now current theories about semantic roles do not seem to me to be of any help here because they present us with an unwieldy diversification of semantic roles, and what is needed is a rather rough division. Nevertheless, we may hope that a structural theory of Θ-assignment can be developed which would assign Agent and related roles (Instrument, for instance) to (NP,S), or at least not to (NP,$\bar{V}$), and Patient/Theme and related roles to (NP,$\bar{V}$). It is doubtful whether such a theory is easy to develop (if we want to go beyond making such simple descriptive statements) but we may take such ideas as a lead for further research. At least in the case of the NOM DAT verbs discussed above Burzio's hunch seems to be correct.

I would like to conclude this theoretical section by returning to the problem of the configurationality of German and Dutch as posed in section 1 of this essay. As was pointed out there, some linguists, for instance Haider (1981) and (1982) and Tappe (1982), advocate a nonconfigurational (or: flat S) analysis for German and it should be pointed out that many of their arguments carry over the Dutch. Others, for instance Thiersch (1982) and Den Besten (1982), prefer a configurational analysis

for these languages. Now the description discussed in this paper shows that a fairly flexible instance of free word order in German and Dutch can be described in terms of a configurational syntax by means of Move NP, the Ergative Hypothesis and a parametrized theory of Case Assignment. Furthermore, this description seems to be in accordance with observations by Lenerz (1977) to the effect that the DAT NOM order is the unmarked one and can be used under all circumstances whereas the NOM DAT order is the marked one and puts restrictions on the distribution of pragmatic functions like Theme and Rheme.[7]

I do not want to claim that all other cases of permuting NPs should be described in terms of Move NP. Some may, some may not, and it is quite possible that in the long run a nonconfigurational syntax of German (and Dutch) will prove to be superior to a configurational one. However, what my configurational account for Nominative-Dative Inversion clearly shows is that one cannot simply refer to the permutability of NPs in the Dutch and German *Mittelfeld* when arguing for nonconfigurationality. The pertinent facts need further analysis before they can be used as an argument to that effect.

One may wonder whether other NP permutations besides the ones discussed up to now permit a similar treatment. Section 5 will therefore discuss some simple extensions of my account for Nominative-Dative Inversion, having to do with copular constructions and Raising and Exceptional Case Marking. Section 6 will deal with a special case of Nominative-Dative Inversion and with some fairly acceptable examples of Nominative Accusative Inversion.

7. For data about such NOM DAT verbs in German I refer the reader to the Duden Grammatik (1973: 1188bb, 1211, etc.). Unfortunately there is no reference grammar of a similar thoroughness for Dutch. I will give a list of such verbs and verbal expressions (without translations) to fill the gap:

(i) *aanstaan, afgaan (+adv.), behagen, bekomen (+adv.), berouwen, betamen, bevallen, bijblijven, bijstaan, duizelen, gebeuren, kosten, liggen (+adv.), lukken, lusten, mankeren, meevallen, mishagen, misstaan, ontbreken, ontgaan, ontschieten, ontvallen, opbreken, opgaan (SU: een licht), opvallen, overkomen, passen, schelen, smaken, spijten, tegenlopen, tegenstaan, tegenvallen, toebehoren, toekomen, uitkomen (+adv.), vallen (+adv.), vergaan, voldoen, voorstaan, zinnen*

(ii) *(om de oren) fluiten, (in de oren) klinken, (te pas) komen, (ter ore) komen, (van pas) komen, (over de rug) lopen, (door het hoofd) schieten, (te binnen) schieten, (door het hoofd) spelen, (ten dienste) staan, (ter beschikking) staan, (voor ogen) staan, (voor ogen)zweven.*

(Many of the examples in (ii) involve Possessive Datives.) This list does not pretend to be exhaustive.

5. Some extensions of the analysis

5.1 Nominative-Dative Inversion in copular constructions

Consider the following examples:

(61) a.G --, daß die Sache$_{NOM}$ dem Minister$_{DAT}$ noch nicht ganz
D --. dat de zaak$_{NOM}$ de minister$_{DAT}$ nog niet helemaal
that the matter to-the minister not-yet fully
klar war
duidelijk was
clear was

b.G --, daß dem Minister$_{DAT}$ die Sache$_{NOM}$ noch nicht
D --, dat de minister$_{DAT}$ de zaak $_{NOM}$ nog niet
ganz klar war
helemaal duidelijk was

Copular constructions allow the same type of inversion we discussed in sections 3 and 4. And here too DAT NOM seems to be the preferred order, although it does not require much effort to produce the inverse order. Indirect Objects are selected by a couple of predicative adjectives like *klar/duidelijk*. Furthermore, any predicative adjective freely allows an Indirect Object if it is a superlative of the *te* (D)/*zu* (G) type or if it is combined with a copular verb of appearance. Compare the following Dutch examples:

(62) a. --, dat jullie taaltje$_{NOM}$ deze jongen$_{DAT}$ te moeilijk
that your jargon this guy too difficult
is/wordt
is/becomes

b. --, dat deze jongen$_{DAT}$ jullie taaltje$_{NOM}$ te moeilijk is/wordt

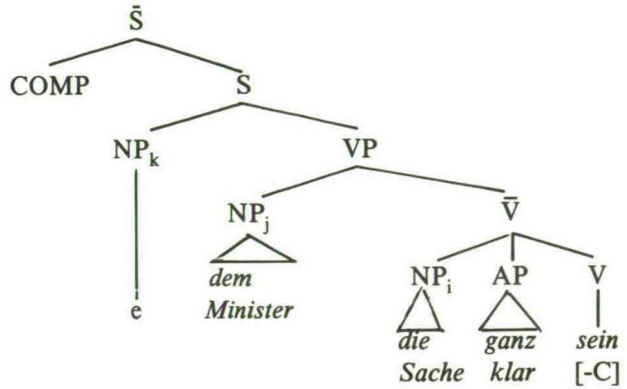
(63) a. --, dat dit voorstel$_{NOM}$ Willem$_{DAT}$ onredelijk leek
that this proposal to-William unreasonable seemed

b. --, dat Willem$_{DAT}$ dit voorstel$_{NOM}$ onredelijk leek

Given what we know about Nominative-Dative Inversion, we may hypothesize that the Nominative NP follows the Indirect Object NP in the respective D-structures for (61)-(63). Since the Indirect Object is part of the VP, the above hypothesis provides independent evidence for recent claims to the efect that the Subject of a copular construction originates from a VP-internal position, more specifically that the Subject of a copular construction starts as the Subject of a small clause which is a complement to the copula. I will not commit myself to this specific proposal, though, because I see some problems here. Therefore, I will not

represent the D-structure of the sentences in (61) as containing a small clause *die Sache ganz klar/de zaak helemaal duidelijk*. Instead I will represent the Nominative NP and the Predicate Nominal as sisters of the copula *sein/zijn*:

(64)



The description will run along the same lines as were set out in the preceding section. *Sein* "be" is supposed not to assign Case, as is indicated by means of the feature [-C]. Compare the discussion of *werden/worden* in the first half of section 4. Furthermore, NP_j will get its Case from $\bar{V}$, Move NP will move either NP_j or NP_i into (NP,S) position, and Tense (COMP) will assign Nominative either directly (by government) or indirectly (via chain-government).

5.2 Raising and Exceptional Case Marking

Nominative-Dative Inversion can also be found in Raising constructions, witness the following examples:

(65) a.D--, dat jouw boek$_{NOM}$ Karel$_{DAT}$ schijnt te bevallen
that your book (to) Charles seems to please
b.D--, dat Karel$_{DAT}$ jouw boek$_{NOM}$ schijnt te bevallen

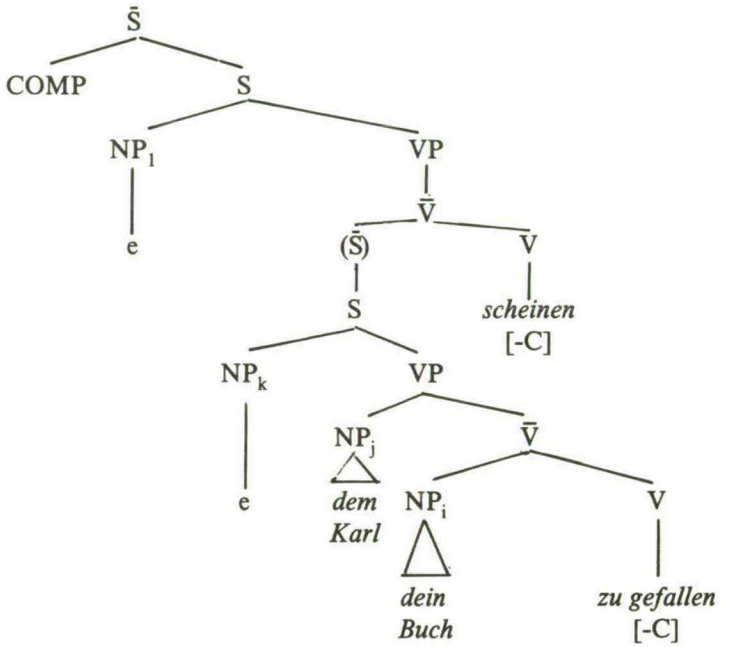
(66) a.G--, daß dein Buch$_{NOM}$ dem Karl$_{DAT}$ zu gefallen scheint
that your book (to) Charles to please seems
b.G--, daß dem Karl$_{DAT}$ dein Buch$_{NOM}$ zu gefallen scheint

The Dutch examples in (65) deviate from the German ones in (66); this is due to the rule of Verb Raising (20). This rule has changed the underlying 'German' order *te bevallen schijnt* (*zu gefallen scheint*) into the VO order *schijnt te bevallen*. In order not to further complicate matters, we will restrict our attention to the German examples under (66), and we will not bother about the question of whether the left-adjoining Verb Raising rule

of German has applied to the examples in (66) since that is not our concern here. The surface order *zu gefallen scheint* reflects D-structure order, and that is what we need.

The required D-structure looks as follows:

(67)



Note that the transparency or invisibility of S̄ — which may be caused by a rule of S̄-Deletion (cf. Chomsky 1981) — is indicated by putting the S̄ governed by *scheinen* between parentheses.

In the above structure *scheinen* and *gefallen* do not assign Case to the respective NPs they govern nor do they Θ-mark their respective Subjects. Now note that two chains of governors can be distinguished because according to the definition *scheinen* governs both NP_k and the V *zu gefallen*. Therefore, a chain (COMP, *scheinen*) chain-governs NP_k and a chain (COMP, *scheinen, zu gefallen*) chain-governs NP_i. Consequently COMP may assign Nominative to either NP_i or NP_k or NP_1. In order to minimize the number of possible interactions between Case Assignment and Move NP, I will assume that Nominative Assignment applies at S-structure, which will in fact exclude Nominative Assignment to NP_k. NP_j will get its Case from its governor V̄, presumably at D-structure.

Given these assumptions (66)a and (66)b will be derived in the following way: If NP_i is not Case-marked in situ, it will move via the position of NP_k into the position of the main clause Subject NP_1 where it

will get Nominative Case from COMP (Tense). This yields the NOM DAT order of (66)a. If however COMP assigns Nominative to NP_i in its base-generated position, the Dative NP_j will move instead and will jump into the position of NP_k and from there into the position of NP_l — which will yield the DAT NOM order of (66)b.[8]

This concludes my discussion of Nominative-Dative Inversion and Raising constructions. Now Raising Verbs happen to be the mirror image of Exceptional Case Marking Verbs. Raising Verbs do not assign Case to the lower Subjects they govern — Exceptional Case Marking verbs do. Raising verbs do not Θ-mark their own Subjects — Exceptional Case Marking verbs do. Therefore ECM verbs do not allow NP inversions across a clause boundary (unless they are passivized). However, if an ergative or passive structure is embedded under an ECM verb, we may expect to find cases of Accusative Dative Inversion in the lower clause. And in fact we do.

There are a couple of ECM verbs in Dutch and German, such as the verba sentiendi, *laten* (D)/*lassen* (G) 'let, make', and a couple of others. Ergative verbs of the required type, embedded under ECM verbs, are hard to find. However passive constructions of the required type are easier to find and it is well-known that some sort of passivization can take place in the complement of *laten/lassen* in the absence of the usual passive morphology. Compare the following German examples:

8. Note that I presuppose a Raising analysis for *scheinen/schijnen*. However, unlike Raising in English, Raising in Dutch and German cannot be 'seen'. This is due to the fact that government in Dutch and German VPs is to the left (cf. Hoekstra 1982 and 1983). Icelandic, which governs to the right, preserves Nominative-Dative Inversion under Raising (for instance, in Raising passives of *telja* "believe", compare (ii) in n. 6), and so in that language the interaction of Nominative-Dative Inversion and Raising can be seen. However, there is a couple of marked Raising expressions in Dutch which govern to the right, e.g., *geacht worden/verondersteld worden* "be supposed to" and the perfect of *blijken* ("appear, turn out"), *gebleken zijn*:

(i) Jan_i wordt geacht $[_S\ e_i\ [_{VP}$ dit boek te hebben geschreven]]
$John_i$ is supposed this book to have writen

Furthermore, these expressions allow indefinite Nominatives at the embedded Subject position:

(ii) Er wordt geacht $[_S$ geen verschil te bestaan tussen man en
there is supposed no difference to exist between man and
vrouw]
woman

Thus one may wonder whether such constructions permit Nominative-Dative Inversion across a sentence boundary. However, the sentences we are looking for sound rather marginal and deserve further investigation.

(68) a. Er hat [$_S$ Johann$_{ACC}$ dem Karl$_{DAT}$ das Buch$_{ACC}$ bringen] lassen.
he has John (to) Charles the book bring let

b. Er hat [$_S$ dem Karl$_{DAT}$ (von Johann) das Buch$_{ACC}$ bringen] lassen.
he has (to) Charles (by John) the book bring let

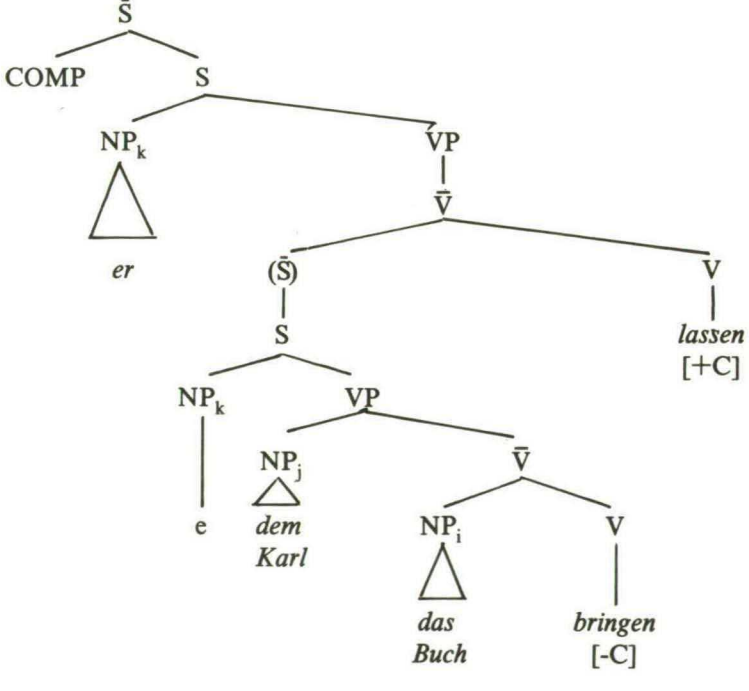
The above data have been simplified in that the consequences of the application of Verb Raising to this structure (compare Den Besten (1981c)) have been left out of consideration. This does not really matter since *bringen* and *lassen* have kept their D-structure order in these S-structures. (The corresponding Dutch examples would involve an inversion of *brengen* and *laten*).

Now note that (68)b involves a case of Accusative-Dative Inversion. The opposite order is also possible but I think that the DAT ACC order is preferred:

(68) c. Er hat [$_S$ das Buch$_{ACC}$ dem Karl$_{DAT}$ bringen] lassen.

The derivation of (68)b and (68)c will take the following D-structure as a starting point:

(69)



(The temporal auxiliary *haben* has been left out to simplify the tree a little.) We will assume without further discussion that *bringen* has absorbed Objective Case and does not Θ-mark its Subject. Thus, in spite of being an infinitive, *bringen* behaves like a passive past participle. This exceptional behavior is due to *lassen*. Thus *lassen*, being the first Case-assigner up, may now assign Case either to NP_k (via government) or to NP_i (via chain-government). In the latter case NP_i can stay in situ and NP_j may move into the embedded Subject position — which will yield the DAT ACC order of (68)b. In the former case NP_i will move into Subject position and receive its Accusative Case via direct government — which will yield the ACC DAT order of (68)c. It goes without saying that Dative-Accusative Inversion is a misnomer. DAT ACC is the underlying order. Only the ACC DAT order evidences inversion.

6. NP permutations with some other verbs

6.1 Introduction

In this section, which may be viewed as sort of an appendix to the preceding sections, I will deal with more troublesome data which I think can still be analyzed along the lines set out in this paper. This part of my paper takes its inspiration from Lenerz's book on the order of argument NPs in German (Lenerz 1977).

6.2 Nominative-Dative Inversion with nonpsychological verbs

It has been noted by Lenerz (1977: 105 f.) that a couple of NOM DAT verbs in German which allow agentive Subjects, i.e. *helfen* "help", *dienen* "serve", and *schaden* "damage, harm", permit Nominative Dative Inversion on condition that the Nominative not be an Agent:

(70) a. --, daß meinem $Vater_{DAT}$ dieses $Mittel_{NOM}$ nicht helfen kann
that my father this remedy not help can

b.?*--, daß meinem $Vater_{DAT}$ die $Krankenschwester_{NOM}$ nicht helfen kann
that my father the nurse not help can

Both examples are grammatical if the order of constituents is NOM DAT. *Helfen* in (70)a means "to be helpful", whereas *helfen* in (70)b implies active assistance. Furthermore, the Nominative in (70)a does not seem to have the instrumental reading which is possible under the NOM DAT order, and *helfen* as used in (70)a hardly allows a syntactic passive

(not even with an instrumental *durch*-PP), if at all, whereas the verb ***helfen*** of (70)b can be passivized quite easily:

(71) a. ??--, daß meinem Vater durch dieses Mittel geholfen worden
that to-my father by this remedy helped been
ist
has

b. --, daß meinem Vater von der Krankenschwester geholfen
that (to) my father by the nurse helped
worden ist
been has

Note that (71)a certainly is grammatical if the verb has the active meaning of (70)b and (71)b. In this case an agent phrase has been suppressed. Also note that (70)b may be rendered grammatical if we impose the nonactive reading on the pertinent verb, which requires a nonagentive, 'depersonalized' reading for the Nominative. One has to stretch one's imagination, but given such a reading example (72) cannot really be ungrammatical:

(72) --, daß meinem Vater_{DAT} selbst eine $\text{Krankenschwester}_{NOM}$
that to-my father even a nurse
nicht mehr helfen würde
not anymore help would

A lot more could be said about the vacillating properties of ***helfen*** but if the above remarks are correct, the conclusion seems inevitable that ***helfen*** has a dual status: It is an ergative verb in (70)a and an intransitive one in (70)b. The corresponding D-structures look roughly as follows:

(73) a. $[_{\bar{S}}$ COMP $[_{S}[_{NP}$ e$]$ $[_{VP}[_{NP}$ meinem Vater$]$ $[_{\bar{V}}[_{NP}$ dieses Mittel$]$
[+C]
helf-$]]]]$
[-C]

b. $[_{\bar{S}}$ COMP $[_{S}[_{NP}$ die Krankenschwester$]$ $[_{VP}[_{NP}$ meinem Vater$]$
[+C]
$[_{\bar{V}}$ helf-$]]]]$
[-C]

Structure (73)a allows two orders, DAT NOM and NOM DAT. Structure (73)b permits only the NOM DAT order. This is predicted by the theory put forward in section 4.

6.3 Nominative-Accusative Inversion with psychological verbs

Lenerz (1977) mentions a couple of 'psychological' verbs in German that permit an inversion of a Nominative and an Accusative. These re-

orderings are quite natural, unlike other cases of Nominative-Accusative Inversion, and it is interesting to note that this phenomenon is shared by Dutch, a language without morphological Case.[9] Consider the following examples:

(74) a. G --, daß meinen Vater$_{ACC}$ deine Geschichten$_{NOM}$ überhaupt
D --, dat mijn vader$_{ACC}$ jouw verhalen$_{NOM}$ volstrekt
that my father your stories totally
nicht interessieren
niet interesseren
not interest

b. G --, daß deine Geschichten$_{NOM}$ meinen Vater$_{ACC}$ überhaupt
D --, dat jouw verhalen$_{NOM}$ mijn vader$_{ACC}$ volstrekt
nicht interessieren
niet interesseren

One might wonder whether such constructions can still be dealt with under a Move NP analysis, since we may assume that the Direct Object bears structural Case.[10] And that means that the extra position which is made use of to account for Nominative-Dative Inversion, more specifically to account for a VP-internal Nominative, is taken.

It seems to me that a solution within the configurational framework is possible, although I have my doubts about it. Let me first state that the

9. If both NPs refer to persons the result of Nominative-Accusative Inversion is certainly not perfect. Yet such inversions seem to be grammatical. Compare n.4.

10. Everaert (1982: 4.4 and 5.2) interprets Dutch examples similar to (74) as involving NOM DAT verbs. This idea is ill-advised, I think. First of all, four out of six of Everaert's verbs contain the prefix *be-*. *Be-* is a transitivizing prefix, the German verb *behagen* "please" being one of the very few exceptions in that it takes a Dative. (The status of *behagen* in Dutch is not yet clear to me.) Second, as Everaert argues at length, his supposedly intransitive verbs permit personal passives, whereas impersonal passives are ungrammatical:

(i) Hij werd door dat gedoe geamuseerd.
he was by those doings amused
(ii) *Hem werd door dat gedoe geamuseerd.
him was by those doings amused

Such behavior is in accordance with transitivity. Third, verbs like Everaert's *verontrusten* "alarm" and *amuseren* "amuse" can also show up in lexical passives:

(iii) Hij was verontrust over de uitslag.
he was alarmed at the results

Subjects of lexical passives are Themes and correspond to Direct Objects in active structures. Thus the verbs under consideration assign Accusative Case and do not differ from their German counterparts.

set of 'psychological' NOM ACC verbs is not a unified class. Furthermore, each verb seems to possess several 'readings' (compare *helfen* in section 6.2), which complicates matters considerably. I will not go into a discussion of the problems that arise if one wants to study these verbs and I will restrict myself to a couple of them that seem to share some properties. The examples will be taken from Dutch. The pertinent verbs are *interesseren* "interest", *ergeren* "irritate", *verwonderen* "surprise", and *verbazen* "surprise". These verbs hardly allow a reading such that the Nominative serves as an Agent or Instrument. *Interessieren* is an exception in that it can easily take an Agent phrase:

(75) a. *Dat*$_3$ interesseert *mij*$_2$.
that interests me
b. *Hij*$_1$ heeft *mij*$_2$ *daar*$_3$ voor geïnteresseerd.
he has me that-for interested

The object of the preposition *voor* bears the same relationship to *interesseren* as the Nominative NP does in example (75)a. Whatever that relationship is, the pertinent phrase is certainly not an Agent or Instrument. Thus it does not come as a surprise that (75)b can be passivized, whereas it is not clear whether (76) may be regarded as the passive related to (75)a:

(76) Ik word daardoor geïnteresseerd.
I am(?) that-by interested

Two questions must be asked with respect to (76). First, is the verbal element *worden* the passive auxiliary *worden* "be" or is it the copula *worden* "become"? Second, is the *door*-PP a passive *by*-phrase or is something else? As for the latter problem, consider the following example:

(77) Daardoor / Door zulk soort argumenten heeft hij mij
that-by / by such type (of) arguments has he me
weten te interesseren voor die baan.
be-able to interest for that job

Since such instrumental or causal *door*-PPs may occur in active sentences, they may also cooccur with a passive *door*-phrase witness the following example:

(78) Daardoor ben ik door hem voor die baan
that-by have-been I by him for that job
geïnteresseerd.
interested

Thus, *daardoor* in (76) need not be a passive *door*-phrase. In fact (76) can

be paraphrased as (79) with the copula-like verb *raken* "get, become" instead of *worden*:

(79) Ik raak daardoor geïnteresseerd.
I get that-by interested

Yet it seems to be possible to assign a passive interpretation to (76) but in that case it must be related to an elliptical usage of the agentive variant of *interesseren* which leaves out the *voor*-PP. Thus, (75)a may have two readings: a nonagentive one and an agentive one. In the latter case the Subject will bear the semantic role of Instrument while the *voor*-PP has been left out. I find it rather difficult to get this elliptical instrumental reading and I will restrict myself to the nonagentive one.

Now note that the above-mentioned verbs *interesseren, ergeren, verwonderen* and *verbazen* can also show up in variant constructions in which the arguments are reordered:

(80)a. *Dat*$_3$ interesseert *mij*$_2$
that interests me
b. *Ik*$_2$ interesseert *mij*$_2$ *daar*$_3$ voor
I interest myself that-for
(81)a. *Dat*$_3$ ergert *mij*$_2$
that irritates me
b. Ik$_2$ erger *mij*$_2$ *daar*$_3$aan / *daar*$_3$over
I irritate myself that-on / that-about

This variant construction involves the use of an inherent reflexive pronoun. The pronoun as such is superfluous from a semantic point of view and therefore the pairs of Subject and reflexive pronoun in (80)b and (81)b correspond to the Direct Objects in the a-examples. The PPs in the b-examples correspond to the Subject phrases in the a-examples.

Now compare the following two examples:

(82)a. –, dat ik$_{NOM}$ mij$_{ACC}$ daarvoor interesseer
that I me that-for interest
b. –, dat mij$_{ACC}$ dat$_{NOM}$ interesseert

(The German counterparts of these examples are exactly parallel in structure.) Let us suppose that the 'inverted' Nominative in examples like (82)b and (74)a are in an Oblique position that cannot get Case from the verb. Chain-government and Move NP will do the rest.

The hypothesis that there is an Oblique position between the Direct Object and the Verb can be argued for on the basis of the following observations: First, if a verb subcategorizes for a Direct Object and a Prepositional Object, the PP will follow the Direct Object. This word order is illustrated in (75)b above. This observation applies both to Dutch

and to German. Secondly, in German, verbs subcategorizing for an ACC and a Genitive phrase require the order ACC GEN:

(83) a. --, daß er [$_{VP}$[$_{\bar{V}}$ den Karl$_{ACC}$ des Diebstahls$_{GEN}$
that he Charles (of) (the) larcency
beschuldigt hat]]
accused has

b. --, daß sie [$_{VP}$[$_{\bar{V}}$ uns$_{ACC}$ unseres Geldes$_{GEN}$ beraubt haben]]
that they us (of) our money robbed have

In the corresponding Dutch structures appear PPs with *van* "of" instead of Genitive phrases:

(84) a. --, dat hij [$_{VP}$[$_{\bar{V}}$ Karel$_{ACC}$ van diefstal$_{PP}$ beschuldigd heeft]]
b. --, dat zij [$_{VP}$[$_{\bar{V}}$ ons$_{ACC}$ van ons geld$_{PP}$ beroofd hebben]]

The pertinent PPs show up in the canonical position between DO and V. Finally, a couple of verbs in German take double accusatives (cf. Den Besten 1981c). One such verb is *lehren* "teach":

(85) --, daß er [$_{VP}$[$_{\bar{V}}$ mich$_{ACC}$ Deutsch$_{ACC}$ gelehrt hat]]
that he me German taught has

Given the corresponding passive structure in (86), we may conclude that the first ACC in (85) bears structural Case, whereas the second NP is an Oblique Accusative:[11]

(86) --, daß ich von ihm Deutsch$_{ACC}$ gelehrt worden bin
that I by him German taught been have

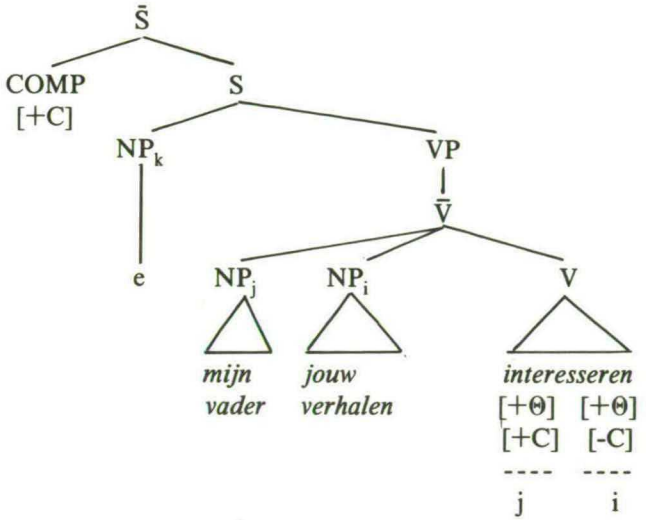
Thus it seems reasonable to assume that a verb can subcategorize for two NPs under $\bar{V}$, the first one bearing structural Case, the second one bearing Oblique Case. Something similar applies to verbs subcategorizing for an NP and a PP.[12]

Let us suppose then that the structure underlying examples like (74) roughly looks as follows (leaving out adverbials):

11. Double Accusatives of the type under consideration are starting to get out of use and are being replaced by the unmarked combination of a Dative and an Accusative. The passivization possibilities are changed accordingly.

12. This does not mean, though, that I believe that Oblique Objects and PP Objects are completely parallel in syntactic behavior. However, they do share the property of separating Direct Objects and Verbs.

(87)



In structure (87) the verb assigns thematic roles to NP_j and NP_i. However, while the verb is able to assign structural Case to NP_j — which apparently does not require the presence of a thematic Subject —, it is not able to assign Case to NP_i in the Oblique position. The pertinent NP will acquire Case via chain-government or by moving into the (NP,S) position.

If the above analysis can be upheld, two conclusions can be drawn. First, ergative verbs do not have to absorb structural Case if they can absorb another $\bar{V}$-internal Case. Such a constellation of facts is possible only if a language can provide for a second nominal Object under $\bar{V}$. In German this second nominal position is motivated by the use of several Oblique Cases that may cooccur with a structural Case. And it is surprising that Dutch, which does not have any lexically governed Case any longer, still provides for such a position. Secondly, NOM ACC Inversion (or rather: Accusative-Nominative Inversion) need not be an argument in favor of nonconfigurationality.

7. Concluding remarks

To sum up: In this paper I have discussed a number of constructions in Dutch and German which evidence free ordering of a Nominative and a Dative or an Accusative. In section 3 I argue that the DAT NOM order must be analyzed in such a way that the NOM is in (NP,$\bar{V}$) position, i.e. in the Direct Object position, whereas the Dative may be in (NP,S) position. In section 4, I show how the DAT NOM order and the variant NOM DAT order can be derived from the same D-structure given the Ergative

Hypothesis and certain assumptions about Case Assignment. Section 5 deals with some extensions of the analysis proposed: Nominative-Dative Inversion in copular constructions as well as in Raising constructions and Accusative-Dative Inversion in Exceptional Case Marking complements. It follows from the analysis that Nominative-Dative Inversion and Accusative-Dative Inversion are misnomers and should be renamed as Dative-Nominative Inversion and Dative-Accusative Inversion respectively. Finally, section 6 treats of Nominative-Dative Inversion (Dative-Nominative Inversion) with verbs like *helfen* (G) "help", which is complicated by the fact that these verbs possess several readings, and Nominative-Accusative Inversion (Accusative-Nominative Inversion) with a couple of 'psychological' verbs in Dutch and German. The former set of facts provides additional support for the idea which is implicit in the Ergative Hypothesis to the effect that Agents are generated in (NP,S) position whereas Themes are assigned to the (NP,$\bar{V}$) position. The latter set of facts, which is a potential problem for the theory put forward in this paper, can also be solved by means of the Ergative Hypothesis, provided verbs may subcategorize for NPs in an Oblique position while not being able to assign lexical Case to such NPs.

The discussion in this paper shows that a fairly large amount of free word order data can be dealt with in a configurational frame-work and therefore does not require a nonconfigurational base with a so-called flat S. Furthermore, we may conclude that it is dangerous to draw immediate conclusions as to the surface position of argument NPs on the basis of their surface Cases. A Nominative may be an Agreement Subject while at the same time being a syntactic Direct Object. An argument can be Dative, and Goal in terms of semantic roles, while at the same time being a syntactic Subject. Therefore, the monolithic terms 'Subject', 'Direct Object' and the like should be given up in favor of more suitable terminology.

Remarks concerning chapter 5.

R1. *Relationship to the preceding chapter.*

In the remarks R1.-R3. to chapter 4. it is discussed to what extent chapter 5. can be seen as a comment upon, or a revision of, ideas contained in chapter 4. I will not repeat these points in any detail here. Generally speaking, this chapter brings my ideas about Case-assignment and Move NP more in line with standard assumptions within the framework of Government and Binding Theory, so that now both passive and ergative structures can be dealt with.

At the same time, however, new unorthodox ideas are introduced in that a mechanism is proposed which permits Nominative (or any other 'external' Case) to be assigned inside the VP, so that Move NP can be made optional for DO NPs (at least if another argument NP is available to move into the structural Subject position). By the introduction of this new mechanism in Case Theory it has become possible to deal with a large array of seemingly nonconfigurational facts in German and Dutch word order in a configurational fashion. This way, the configurationality of German and Dutch syntax which is presupposed in chapter 4. is made explicit in chapter 5. and is defended against nonconfigurational treatments of German (and sometimes Dutch) syntax.

R2. *$\bar{V}$ and Verb Projection Raising.*

In this chapter it is argued that $\bar{V}$ (sometimes called small VP) can be justified on the basis of $\bar{V}$ Raising in Dutch and German dialects. $\bar{V}$ Raising is an instance of what is nowadays called Verb Projection Raising, i.e. Raising of a V^n ($n \geqslant 1$) to a governing verb. (Compare section 2.3. of chapter 3. and the literature mentioned there.) A relevant example is the Zürich German sentence (9), repeated here as (i) with a slight change of presentation:

(i) Mer händ em Hans wele töörfe-n- [$_\alpha$ es velo schänke]
We have (the) John want be-allowed-to a bike give

According to chapter 5. α must be equal to $\bar{V}$. However, discussion in the recent literature shows that such an analysis is not necessary and can even be excluded on theoretical grounds. An alternative analysis is indicated under (ii):

(ii) Mer hand em Hans$_i$ wele töörfe-n- [$_\alpha$ t$_i$ es velo schänke]

The alternative analysis is based upon two considerations: (a) In principle Verb Projection Raising also includes cases of full VPs raising into a higher projection; (b) In Continental West Germanic syntax NPs can be moved out of a VP by a rule of Adjunction (sometimes called Scrambling). (For literature on Adjunction, see De Haan (1979), Hoekstra (1984), Bennis and Hoekstra (1985), Bennis (1986), Koster (1987), Broekhuis (1988), Webelhuth (1989), Den Besten and Webelhuth (to app.) and Webelhuth and Den Besten (1989).) These two considerations make it possible to interpret α in (i) as a full projection which implies that there must be a trace of the Indirect Object *em Hans* inside that full projection as is indicated in (ii). An argument to the effect that Verb Projection Raising can be interpreted as VP Raising plus or minus one or more applications of Adjunction can be found in note 8 of Den Besten and Rutten (1989) where it is shown that such an analysis can solve certain problematic cases for a movement analysis of Verb (Projection) Raising which Haegeman and Van Riemsdijk (1986) used as an argument for their reinterpretation of Verb (Projection) Raising as Reanalysis (plus or minus inversion inside the reanalyzed cluster at the level of PF). Similar arguments can be found in Vanden Wyngaerd (1989), who — however — opts for AGRP Raising instead of Verb Projection Raising. Furthermore Vanden Wyngaerd points out that by assuming raising of full projections we can bring our ideas about Verb Projection Raising in line with recent ideas about the theory of movement rules as put forward in Chomsky (1986) (but partly abandoned since, cf. n. 13 to Chomsky (1988)). According to Chomsky (1986) Move α can be restricted to movements of heads of phrases and movements of full projections. Given this refinement of the theory of movement rules there is no room for $\bar{V}$ Raising. (Also compare R3. to chapter 3.)

Although these recent changes in the theory make it impossible to analyze sentences like (i) as an argument in favor of the existence of a small VP I am confident that the assumption of such a small VP is on the right track because it has proven to be a useful tool in the analysis of Dutch and German, as is clear from the present study.

R3. *COMP and INFL.*

In this chapter it is assumed that — since it is very difficult to find evidence in favor of an INFL position in either Dutch or German syntax — there is no INFL in Dutch (or German) and that Nominative Case is assigned by a [+Tense] COMP, which is also the receptacle for V-to-

COMP in main clauses. At the same time, however, it is assumed that the finite COMP in Dutch and German need not be the INFL of these languages, in contradistinction to what is proposed in Platzack (1983) who speaks about CONFL (or to what is proposed in Koopman (1984) who equates COMP in a V2 language with INFL).

These assumptions are at (partial) variance with chapter 3. (which was written after this chapter) where it is assumed that every language has an INFL, also if V-to-INFL cannot be seen, as is the case in Dutch and German. Yet, assuming an INFL in Dutch and German syntax (which is also in accordance with Chomsky (1986)) does not in any way affect the treatment of case-assignment and Move NP proposed in this chapter. A chain of governers (INFL, V_1, ..., V_n) ($n \geqslant 1$) can assign Nominative as well as a chain (COMP, V_1, ..., V_n) ($n \geqslant 1$) would.

R.4 *Move NP and Adjunction*

Although this chapter is meant among other things to be a contribution to a theory about the freedom of word order in Dutch and German, it only treats of part of the phenomena that make up Continental West Germanic free word order. As is explicitly stated in section 1. German examples like (1)a and b (repeated as (i)a and b below) are left out of consideration:

(i) a. Ich glaube, daß diesen Baum$_{ACC}$ ein Förster$_{NOM}$
I believe that this tree a forrester
gefällt hat
cut-down has

b. Schenken Sie Ihre Stimme unserer Partei
Give you your vote to-our party

The pertinent phenomenon is termed "S-internal and VP-internal Topicalization" due to the inversion of NOM and ACC and of DAT and ACC respectively, which is reminiscent of the word order effects of Topicalization of a non-Subject. Although what is said in the main text implies that these phenomena are typical for German, note 1 indicates that at least DAT ACC inversion as in (i)b is not completely impossible in Dutch and I would like to add that under the right conditions also NOM ACC inversion as in (i)a is possible in Dutch. Compare the following (Dutch) example:

(ii) –, dat zulke dingen$_{ACC}$ zelfs mijn zuster$_{NOM}$ niet zou
–, that such things even my sister not would
durven zeggen
dare say

Note that this "S-internal and VP-internal Topicalization" does not have the properties of embedded Topicalization (cf. chapter 3.) so that no embedded Verb Second is involved.

It happens to be the case that these cases of "S-internal and VP-internal Topicalization" are special instances of what nowadays goes by the name of Adjunction, Light NP Shift, etc. Through Adjunction argument NPs and PPs (and under certain conditions also other elements) can be moved off their D-structure position and adjoined to a dominating projection. In most cases this will mean that these elements will be extracted out of their own VP ending up under IP or another VP. To take a simple example, if sentence adverbials such as Du. *waarschijnlijk* or the Dutch negation *niet* are generated outside the VP Adjunction will be responsible for the S-structure underlying (iii):

(iii) Hij zal dat huis$_i$ waarschijnlijk/niet t_i kopen
He will that house probably/not t_i buy

Note that Adjunction is typically applied to topical elements. If *het huis* is not moved it gets a focal reading, as is the case in (iv):

(iv) Hij zal waarschijnlijk dat huis kopen
He will probably that house buy

The first to discuss this phenomenon was De Haan (1979), whose proposal was not payed much attention to until it was taken up by Hoekstra (1984). In the subsequent literature it was shown that Adjunction can be held responsible for certain cases of parasitic gaps in Dutch (i.e. in Bennis and Hoekstra (1985) and Bennis (1986)), whereas Den Besten and Webelhuth (to app.) and Webelhuth and Den Besten (1989) discuss the interaction between Adjunction and VP Topicalization in German and Dutch. (Also compare Den Besten and Rutten (1989) and Vanden Wyngaerd (1989) as well as R2.)

Given these new considerations concerning the syntax of VP and IP in the Germanic SOV languages we have to assume for many of the examples quoted in this chapter that those NPs (be they Nominative or Dative) that are supposed to be in their D-structure position at S-structure need not be, and sometimes cannot be, at their D-structure position. To consider an example of the latter kind let us take (25)a and b repeated here under (v) (the German variants only):

(v) a. --, daß deine Geschichten$_{NOM}$ meinem Bruder$_{DAT}$ nicht
--, that your stories (to) my brother not
gefielen
pleased

b. --, daß meinem Bruder$_{DAT}$ deine Geschichten$_{NOM}$ nicht
--, that (to) my brother your stories not
gefielen
pleased

Neither the Dative NP *meinem Bruder* in (v)a nor the Nominative NP *deine Geschichten* in (v)b can be supposed to be in its D-structure position because the position of *nicht* indicates the opposite.

Although this means that the examples in (v) do not illustrate what they are meant to illustrate it does not follow that the hypothesis defended in this chapter is wrong, since Object NPs do not have to leave their D-structure position. In examples like (v)a and b the respective Dative and Nominative NPs can also follow the sentence adverbial provided they have a focal reading. Yet, this discussion shows that things are more complicated than I thought they were when I wrote this paper.

Nevertheless the above critical remarks are of only marginal importance in view of the more pressing question of whether we need Move NP at all if a language can avail itself of Adjunction.

In order to see why we can ask ourselves this question, let us reconsider the examples in (v). In the chapter under consideration it is assumed that the Nominative in (v)a and the Dative in (v)b have been moved to the structural Subject position by means of Move NP. At the same time however we have to assume that *meinem Bruder* (DAT) in (v)a and *deine Geschichten* (NOM) in (v)b have also been extracted out of the VP — in this case by means of Adjunction. Unfortunately, in a grammar with Move NP and Adjunction it cannot be excluded that it is the Dative in (v)a and the Nominative in (v)b that have been moved to the structural Subject position while the other NPs have jumped over the structural Subject by means of Adjunction.

This proliferation of possible syntactic descriptions is caused by the fact that there are two movement rules: one with a fixed landing site (Move NP) and one with a large set of possible landing sites (Adjunction). And even if we can restrict the number of possible syntactic descriptions we still have to make use of two different movement rules to derive (v)a and b. This in itself is already a reason to derive both examples by means of one movement rule, i.e. by means of Adjunction. Note that more than one NP can leave the VP via the Adjunction operation, as is clear from the following examples where the position of the negation marker indicates that both Objects have been extracted out of the VP:

(vi) a. --, daß sie meinem Onkel$_{DAT}$ dieses Buch$_{ACC}$ nicht t_{DAT}
--, that she to-my uncle this book not t_{DAT}
t_{ACC} zuschicken wollte
t_{ACC} send wanted

b. --, daß sie dieses Buch$_{ACC}$ meinem Onkel$_{DAT}$ nicht t_{DAT} t_{ACC}
--, that she this book to-my uncle not t_{DAT} t_{ACC}
zuschicken wollte
sen wanted

[(vi)a and b correspond to (26)b and a respectively in the chapter under consideration.] Therefore, in principle it is possible to derive the examples in (v)a and b by means of Adjunction only. And if we do not need Move NP to derive (v)a and b we might as well get rid of that operation altogether.

This hypothesis is a radicalization of the position taken in the chapter under consideration. Chapter 5 claims that a Case-less (NP,$\bar{V}$) does not have to move to the structural Subject position because it may get an external Case via chain-government. Yet, the Case-less (NP,$\bar{V}$) may move to the (NP,S) position (or: Spec,IP in the most recent terminology) because the external Case can also be assigned there via government. Finally, if external Case is assigned to the (NP,$\bar{V}$) position any NP marked with another Case may move to the (NP,S) position. Under the alternative hypothesis a language that can avail itself of Adjunction and chain-government does not make use of Move NP. External Case is now assigned to (NP,$\bar{V}$) in passive and ergative constructions and to the (NP,S) position in the remaining constructions. Or, to put it differently, in the grammar of a language with Case-assignment via government as well as via chain-government Case is assigned to Θ-marked positions only.

This way my discussion of the passive and ergative constructions in chapter 4. and 5. has gone from one extreme to another. In chapters 4. I was arguing against a lexical derivation of Dutch and German verbal passives and I came up with an orthodox description in terms of Move NP. In chapter 5. however I argue that an NP in (NP,$\bar{V}$) position without structural (internal) Case does not always have to move by Move NP. And now I am suggesting that such an NP never moves to the structural Subject position, without having to return to a lexical analysis for verbal passives in SOV Germanic. (As for consequences for the Case filter of chapter 4., cf. R1. concerning chapter 4.)

It goes without saying that what is said above is nothing but a suggestion and that more work has to be done in order to find out whether it can be upheld. More important at the present moment is whether the evidence presented in chapter 5. can be reinterpreted along the lines of the above suggestion. In so far as I can see no problem will arise here. Although evidence is presented showing that a Nominative NP may be in (NP,$\bar{V}$) position, no evidence is given to demonstrate that Nominatives in examples like (v)a are in (NP,S) position. This is being

assumed as a matter of course. Finally, section 3.3. only shows that the Dative NP in examples like (v)b may be in (NP,S) position, not that it has to be there. The pertinent argument, which discusses certain facts about the syntax of R-pronouns in Dutch, runs as follows: "(...) if we follow De Haan (1979) and Van Riemsdijk (1978) in assuming that there is an R-landing site between the Subject and the Indirect Object position, the following examples demonstrate that the Dative may show up in (NP,S) position:"

(vii)a. --, dat Mary er_i het boek t_i voor gegeven is
--, that Mary it_i the book t_i for given has-been
b. --, dat Mary er_i een mooi boek t_i voor gegeven is
--, that Mary it_i a nice book t_i for given has-been
(=(49)a and b in chapter 5.)

This argument is not particularly strong because, as is said in the same section, the syntax of R-pronouns is much more complicated than is usually assumed (cf. Bennis (1980) and, more recently, Bennis (1986)). For instance, *er* may also show up between the Direct and the Indirect Object in active constructions, witness the following examples:

(viii)a. --, dat zij Mary er_i het boek t_i voor gegeven hebben
--, that they Mary it_i the book t_i for given have
b. --, dat zij Mary er_i een mooi boek t_i voor gegeven hebben
--, that they Mary it_i a nice book t_i for given have

Therefore, the examples in (vii) do not show that the Dative has to be in Subject position. And so we might as well give up the idea that the Dative NP ever shows up there at all.

To end with a positive note: by assuming that the NOM DAT order in passive and ergative structures is derived by Adjunction rather than by Move NP we can reduce one of the lesser known properties of these alleged Move NP structures to properties of Adjunction. Lenerz (1977) is his classical book on the order of NPs in German has shown that if nominal Objects are in their unmarked order (i.e. Dative before Accusative) either Object may be — in terms of "communicative dynamism" — the Rheme (Rhema) of the sentence, whereas in the marked order (Accusative before Dative) the Indirect Object has to be Rheme. Similar observations can be made for ergative verbs and passives. In this case the unmarked order is Dative before Nominative, which permits rhematic stress-assignment on either NP. In the marked order (Nominative before Dative) the Dative NP must be rhematic. Some examples taken from Lenerz (1977) may illustrate this point. Rhematic stress will be indicated by using upper case for the relevant syllables.

First two examples for double Object constructions:

(ix) Q Wem hast du das Geld gegeben?
To-whom have you the money given?
Aa. Ich habe dem KasSIErer das Geld gegeben
I have the cashier the money given
b. Ich habe das Geld dem KasSIErer gegeben

(x) Q Was hast du dem Kassierer gegeben?
What have you the cahier given?
Aa. Ich habe dem Kassierer das GELD gegeben
I have the cahier the money given
b.? *Ich habe das GELD dem Kassierer gegeben

These examples are taken from p. 43 of Lenerz's book. The following examples, taken from p. 115 of the same book, illustrate the point for ergative structures:

(xi) Q Wem ist der Coup gelungen?
To-whom has the coup succeeded?
Aa. Ich glaube, daß der Coup einem BaRON gelungen ist
I think that the Coup to-a baron succeeded has
b. Ich glaube, daß einem BaRON der Coup gelungen ist

(xii) Q Was ist dem Baron gelungen?
What has to-the baron succeeded?
Aa. Ich glaube, daß dem Baron ein COUP gelungen ist
I think that to-the baron a coup succeeded has
b. *Ich glaube, daß ein COUP dem Baron gelungen ist.

(Similarly for passive structures.)

It is evident that we may interpret the unmarked orders DAT ACC and DAT NOM as being sequences that correspond to the respective D-structure orders (although both NPs may have undergone Adjunction). Now, if both marked orders (i.e. ACC DAT and NOM DAT respectively) are derived via applications of Adjunction (rather than via Adjunction in one case and via Move NP in the other case) the communicative properties of the NOM DAT order in (xi)Aa and (xii)Ab may be determined by the same module of grammar that is responsible for the communicative properties of the ACC DAT order in (ix)Ab and (x)Ab.

Epilogue

The five chapters of this book, if read in combination with the five Remarks sections, can give an insight into my present thoughts on some central aspects of the syntax of West Germanic. Witness the many changes of view that are documented in this study, these ideas are no doubt temporary and may undergo changes in the near future. Yet, if we disregard that and leave out a couple of issues the following general picture of the syntax of clauses of the Germanic SOV languages arises.

A main clause and no doubt most embedded clauses can be described as CPs (=$\bar{S}$s), each CP containing an I(NFL)P (=S) with a VP in it, as is indicated under (1):

(1) a. $CP = [_{CP} \ldots [_{C'} C\ IP]]$
b. $IP = [_{IP} (NP) [_{I'} VP\ I]]$
c. $VP = [_{VP} (NP) [_{V'} \ldots V]]$

For the structure of CP and IP and for the notation used see Chomsky (1986). It might be worthwhile to describe the Subject as an NP base-adjoined to VP but I will stick to the more traditional view.

In these structures V raises to I (V-to-I(NFL)) and the resultant finite verb moves to the position of C (V-to-C(OMP)). The former movement is cyclic, the latter is last cyclic, i.e. a root rule. Generally speaking root rules are restricted to the cycle of the highest CP. They can be applied in direct speech contexts, though, and in the lower CP of a double CP structure, which is a marked configuration.

V-to-COMP creates V2 structures if combined with an application of the cyclic rule of *Wh*-Movement or the root rule of Topicalization (which may be broken down into Move WH and *wh*-deletion in Spec,CP in combination with a base-generated satellite). In the absence of such movements V1 structures arise. In the marked double CP configuration the embedded V2 structure, i.e. the lower CP, is an island.

The A′-movement rules of *Wh*-Movement and Topicalization put an XP in the specifier of CP (Spec,CP), which cannot be filled otherwise. The argument positions under IP and VP will only be syntactically realized if the pertinent verb specifies a Θ-role for them. Case-assignment operates in the usual fashion: Nominative for the (NP,IP) in finite clauses and Accusative for an NP governed by V. Furthermore, Dative is

assigned to the (NP,VP) and the lexicon may specify for certain verbs the use of obliquely marked NPs under V'.

If a verb — either by itself or through passivization — cannot assign structural Case, there will be no external Θ-role. The pertinent Case-less NPs will get Case via chain-government and — since we are assuming that Move NP may be excluded — via chain-government only. (Similarly for Raising constructions.) Both in unergative and in passive and in ergative structures the rule of Adjunction may move argument XPs off their D-structure position and adjoin them to a dominating projection —yielding Move NP-like effects in the case of passive and ergative structures.

Finally, if V takes a clause-like complement (CP or IP, and maybe even VP) the head of the embedded VP and/or the embedded VP itself may adjoin to the higher V through Verb (Projection) Raising (provided we allow not only heads but also full projections to adjoin to heads). Due to the aforementioned rule of Adjunction argument XPs may leave the VP and adjoin to a higher projection yielding inter alia V'-Raising-like effects.

In sum: we have discussed a set of grammars with CP, IP and VP — Theta-assignment to argument positions — syntactic realization under Theta-assignment — Case-assignment to Theta-marked positions only, through government or chain-government — V-to-I in all clauses and I-to-C (V-to-COMP) in root clauses, direct speech contexts and the embedded CP of a marked double CP structure — *Wh*-Movement in all clauses and Topicalization in root clauses, direct speech contexts and in the embedded CP of double CP structures — Verb Raising and/or VP Raising to a higher verb — and the rule of Adjunction, but no Move NP.

Samenvatting

In dit boek zijn vijf reeds eerder gepubliceerde artikelen op het gebied van de syntaxis van het Westgermaans samengebracht en stuk voor stuk voorzien van enig commentaar onder een hoofdje "Remarks" (van nu af aan aangeduid als "Opmerkingen"). De artikelen zijn geschreven tussen 1977 en 1986 en gepubliceerd tussen 1978 en 1986, met de aantekening dat het eerste hoofdstuk weliswaar in 1977 is geschreven en gedistribueerd, maar pas in 1983, uitgebreid met een nieuw Appendix, is gepubliceerd. De nu aan deze artikelen toegevoegde Opmerkingen zijn bedoeld om de historische verbanden en tegenstellingen tussen de artikelen aan te geven en om al dan niet kritische opmerkingen vanuit de recentere literatuur te kunnen maken.

Deze serie van vijf artikelen alsook de toegevoegde Opmerkingen geven een beeld van een jarenlang en nog steeds voortgaand gevecht met de syntaxis van het Germaans, meer in het bijzonder het Westgermaans, in het kader van de Generatieve Grammatica. De artikelen zijn zo gekozen, dat in elk daarvan centrale aspecten van de syntaxis van de Germaanse SOV-talen Nederlands en Duits aan de orde komen. Het verwante Fries komt slechts kort in hoofdstuk 3. aan bod. In dat hoofdstuk wordt echter een belangrijke plaats ingenomen door de 'periferie' van het Westgermaans: het Jiddisch en het Afrikaans. In hoofdstuk 1 wordt voorts enige aandacht besteed aan verschijnselen in het Zweeds, het Engels en het Frans.

De vijf hoofdstukken van dit boek laten zich in twee groepen verdelen. Het eerste gedeelte van het boek (Part 1.) bestaat uit drie studies over COMP, V en INFL, terwijl twee studies over passieve en ergatieve constructies het boek afsluiten.

Hoofdstuk 1. is een poging om de theorie over worteltransformaties van Emonds (1976) te verbeteren alsook een poging om Emonds' Structuur-Behoudendheids-Hypothese tegen potentiële tegenvoorbeelden te verdedigen. Om te beginnen wordt op basis van Nederlandse en Duitse data aangetoond, dat worteltransformaties als Complementeerder-Attractie-Regels gedefinieerd kunnen worden en dat dit theoretisch afleidbaar is, als we het onderscheid tussen S en $\bar{S}$ alsmede een aangescherpte versie van de theorie der toepassingsdomeinen van Williams (1974) aannemen. Voorts wordt geconcludeerd, dat uit Chomsky's Upgrading Principle

(Chomsky 1976) volgt, dat een taal met *Wh*-Verplaatsing een onderscheid tussen S en $\bar{S}$ moet maken. In de volgende stap in de argumentatie wordt aangetoond, dat de Complementeerder-Attractie-hypothese voor wortelverschijnselen in talen als het Frans en het Engels de juiste voorspellingen doet en dat Emonds' rij van Engelse worteltransformaties aanzienlijk gereduceerd kan worden. Zo kunnen veel wortelverschijnselen in termen van één of twee Complementeerder-Attractie-Regels gedefinieerd worden; voor andere verschijnselen hebben we niet worteltransformaties van een nieuw soort nodig maar slechts een Complementeerder-Attractie-Transformatie plus of min een stilistische regel, terwijl weer andere wortelconstructies überhaupt geen eigen worteltransformatie nodig hebben, omdat ze in termen van andere, reeds in de grammatica van het Engels beschikbaar zijnde mechanismes gedefinieerd kunnen worden.

In de hoofdtekst van dit hoofdstuk wordt aangenomen, dat het wortelverschijnsel Werkwoord-Vooropplaatsing, of V-naar-COMP, het best beschreven kan worden als een adjunctie van een finiet werkwoord aan COMP die een verplichte deletie van de lexicale complementeerder tot gevolg heeft. In Appendix II wordt echter aangetoond, hoe deze twee mechanismen in een complementeerder-substitutieregel kunnen worden samengeklapt, mits de finiete complementeerder beschreven wordt als een positie [+T], wat hem categoriaal nondistinct van een [+T] werkwoord maakt. Voorts wordt in de afdeling Opmerkingen betoogd, dat de CP-analyse die de laatste jaren de ronde doet, juistere voorspellingen doet voor across-the-board-toepassingen van Complementeerder-Attractie-Regels dan de oudere $\bar{S}$-analyse.

De resterende delen van hoofdstuk 1. zijn gewijd aan een verdediging van Emonds' Structuur-Behoudendheids-Hypothese tegen potentiële tegenvoorbeelden. Het *pièce de résistance* van deze verdediging bestaat uit de behandeling van twee antiwortelverschijnselen: *Ha*-Deletie in het Zweeds en *Haben/sein*-Deletie in het Duits. Hoewel deze regels slechts in bijzinnen mogen worden toegepast, kan er worden aangetoond, dat hun antiwortelgedrag volgt uit het feit dat door toedoen van het Contradeletieve Ordenings-Principe (een vroege versie van de ordening van PF-regels na verplaatsingsregels) toepassing van deze deletieregels verhinderd zal worden door een eerdere toepassing van de worteltransformatie Werkwoord-Vooropplaatsing (V-naar-COMP). In sommige gevallen zal V-naar-COMP de voor lexicaal deletieve regels vereiste locale context vernietigen. In andere gevallen zal V-naar-COMP de locale context voor lexicale deleties niet vernietigen maar zal de deletieregel toch blokkeren op grond van het Basis-Genereerbaarheids-Principe, dat o.a. vereist dat het delendum zich in een positie bevindt waar het basis-gegenereerd kan worden. Uit een en ander wordt geconcludeerd, dat V-naar-COMP niet

een regel kan zijn die een finiet werkwoord voor een positie V onder COMP substitueert. Daarentegen tast de in Appendix II voorgestelde analyse de voor lexicaal deletieve regels geldende effecten van het Basis-Genereerbaarheids-Principe niet aan. Tenslotte wordt enige aandacht besteed aan de interactie tussen Subject AUX Inversion en *Do*-Deletie in het Engels.

Hoofdstuk 2. is gericht op *Wh*-verplaatsing in samenhang met deletie-regels. Het is een poging om aan te tonen, dat het mogelijk is een argument voor de *wh*-analyse van Comparatief-Deletie te construeren, meer in het bijzonder: een argument voor de aanwezigheid van een *wh*-element in de COMP van een Nederlandse bijzin met Comparatief-Deletie ondanks het feit dat dit nooit fonologisch aan de oppervlakte zal verschijnen. Om te beginnen wordt aangetoond, dat comparatiefcomplementen bestaande uit het prepositionele vergelijkingspartikel *dan* gevolgd door een met een *wh*-element ingeleide bijzin, gevallen van woordgroepcomparatieven zijn (d.w.z. vergelijkende *dan*+XP-reeksen die niet door Comparatief-Ellipsis tot stand zijn gekomen), waarbij de woordgroep die op *dan* volgt, een vrije relatief-constructie vormt. Daarom bieden zulke voorbeelden geen bewijs voor de *wh*-analyse van sententiële comparatieven. In sectie 4. van dit hoofdstuk wordt echter aangetoond, dat het systematische verschil tussen de comparatiefonderschikkers *dan* en *dan dat* door de *wh*-analyse verantwoord kan worden, in die zin dat de afwezigheid van *dat* in de onderschikker *dan* afhankelijk is van de syntactische aanwezigheid van een *wh*-element ter rechterzijde van *dan*. De deletie van dit comparativische *wh*-element zelf is weer afhankelijk van het prepositieachtige element *dan* dat de comparativische *wh*-zin als zijn complement kiest.

Hoofdstuk 3. keert terug naar de syntaxis van finiete werkwoorden. Het centrale probleem dat in dit artikel wordt aangesneden is, hoe een bijzin van de vorm COMP — Subjects-NP — V_f — X — V_1 ... V_n — Y ($n \geqslant 1$) beschreven moet worden, als we er een tegenkomen in een taal of een dialect van het Germaanse SOV-type. Er wordt betoogd, dat er in principe drie analyses mogelijk zijn en dat de beslissing welke regel hier in het spel is, niet altijd gemakkelijk hoeft te wezen. Ten eerste: de betreffende ingebedde reeks kan een geval van ingebedde V-naar-COMP plus Topicalisatie van het Subject zijn. Dit is een gemarkeerd verschijnsel dat plaats vindt, als COMP in plaats van de gebruikelijke S (of: IP) een $\bar{S}$ (of: CP) selecteert — een onderwerp dat in hoofdstuk 1. slechts kort aan de orde is geweest. Echter, deze ongebruikelijke plaatsing van het finiete werkwoord kan ook het resultaat zijn van Verb Projection Raising, ten gevolge waarvan een ingebedde VP ter rechterzijde van een hoger werkwoord (in dit geval het finiete werkwoord) terecht kan komen.

Tenslotte kan deze ongebruikelijke reeks ook het resultaat van V-naar-INFL zijn. Hierbij wordt de suggestie gedaan, dat talen/dialecten die zich in een overgangsfase bevinden, de positie van hun INFL mogen variëren, zodat V-naar-INFL naar links niet verplicht hoeft te zijn.

Hoewel er geen poging wordt gedaan om een uitputtende beslissingsprocedure voor zulke gevallen te definiëren, worden er wel een paar tests gesuggereerd. Om te beginnen kan de Verb Projection Raising-analyse uitgesloten worden, als in de desbetreffende taal of het desbetreffende dialect reeksen van het type ... infinitivaal Raisingwerkwoord — VP ... ongrammaticaal zijn. Ten tweede: als deze taal (dit dialect) geen gebruik maakt van Verb Projection Raising, kan er een *Wh*-verplaatsingstest worden toegepast, omdat, zoals op basis van data uit het Fries en het Jiddisch aangetoond wordt, een door COMP geregeerde, ingebedde V-naar-COMP-structuur een eiland vormt, terwijl V-naar-INFL *Wh*-verplaatsing niet blokkeert.

Een voorlopige analyse van de syntaxis der finiete werkwoorden in het Afrikaans (in het laatste deel van dit hoofdstuk en in het eerste deel van de sectie Opmerkingen) geeft een paar interessante resultaten. Afrikaans, een SOV-taal met V-naar-COMP in wortelzinnen, staat bijzinnen van het type COMP — Subj.-NP — V_f — Y — V_1 ... V_n ($n \geqslant 1$) toe. Toepassing van de *Wh*-verplaatsingstest laat zien, dat dit gevallen van ingebedde V-naar-COMP moeten zijn. Jammergenoeg staat het Afrikaans in ingebedde vragen ook reeksen van het type COMP — V_f — X toe (waarbij COMP, als hij voorafgegaan wordt door een *wh*-element, *dat* of ø mag zijn). Hiervoor is nog geen overtuigende analyse beschikbaar — ten dele omdat zulke bijzinnen in de variatieruimte van de Germaanse talen in Europa, waar dit hoofdstuk een overzicht van geeft, onbekend zijn.

Hoofdstuk 4. is het eerste hoofdstuk van de tweede afdeling van dit boek (studies over passief- en ergatiefstructuren). In dit hoofdstuk wordt betoogd, dat er twee passieven in het Nederlands en het Duits bestaan, die overeenkomen met het verbale en het lexicale passief van het Engels, en dat de argumenten die tegen de aanname van een regel Verplaats NP in SOV-talen zoals het Nederlands en het Duits in stelling zijn gebracht, niet valide zijn. Daarom kan het verbale passief in deze talen met behulp van Verplaats NP afgeleid worden, wat in overeenstemming is met het feit dat in deze talen passieven op onderdelen van idiomen toegestaan zijn alsmede enige Benefactief- en Indirect-Object-passieven en enige Subject Raising-passieven. De afwezigheid van pseudopassieven (of: prepositionele passieven) alsook het maar beperkt voorkomen van Subject Raising-passieven kan op grond van onafhankelijke syntactische eigenschappen van de desbetreffende talen verklaard worden. De (afgezien van enige duidelijk omschreven uitzonderingen) ongrammaticale status van In-

direct Object-passieven in het Nederlands en het Duits wordt in dit hoofdstuk gesteld tegenover de ongrammaticaliteit van uit dubbele objectsconstructies afgeleide Engelse Direct Object-passieven. De oplossing die wordt aangeboden is in termen van Casus-Theorie gesteld, waarbij gekozen is voor een variant van de in Chomsky (1980) voorgestelde naamvalstheorie. Een centrale aanname is, dat de NP die het dichtst bij het werkwoord staat, objectiefcasus (d.w.z. accusatief) krijgt toegekend, terwijl de volgende NP binnen de VP in ongemarkeerde omstandigheden oblieke naamval zal krijgen. Zo zal in een SOV-taal (Duits, Nederlands) het Direct Object in dubbele object-constructies objectief-casus toegekend krijgen, terwijl in een SVO-taal (Engels) nu juist het Indirect Object in een dubbele object-constructie die naamval zal krijgen. Er wordt verder aangenomen, dat er een filter is dat elk met oblieke casus gemarkeerd spoor zal tegenhouden, tenzij het een *wh*-spoor is. Uit deze twee aannames volgt, dat *ceteris paribus* in een SOV-taal onder alle omstandigheden het Direct Object zal passiviseren, terwijl in een SVO-taal het Direct Object alleen maar zal passiviseren, als het op D-structuur adjacent aan het werkwoord is. Verder wordt voorspeld, dat als een SOV-taal lexicaal met accusatief gemarkeerde Indirecte Objecten toestaat, zulke objecten eveneens zullen mogen passiviseren. Deze voorspelling wordt bevestigd door data uit het Duits. Tenslotte worden er nog enige opmerkingen gemaakt over gemarkeerdheid en syntactische verandering van SOV naar SVO in de geschiedenis van het Engels.

Ondanks de goede resultaten blijft de in dit hoofdstuk voorgestelde theorie toch met een paar restproblemen zitten. Zo is er geen verantwoording voor Duitse Accusatief-Genitief-structuren, hoewel die niet incompatibel zijn met het in hoofdstuk 4. verdedigde kader. Verder is er geen verklaring voor het feit dat in dubbele Accusatief-structuren nu juist het accusativische Indirecte (persoonlijke) Object, en niet het Direct Object, moet passiviseren. Tenslotte laat de theorie onverklaard, waarom er in het Duits en het Nederlands geen onpersoonlijke passieven met accusativische Directe Objecten voorkomen, noch onpersoonlijke passieven met dubbele Accusatieven.

Het laatste probleem kan natuurlijk door de voor passieven geformuleerde Casus-Absorptie-Hypothese van de Regeer-en-Bind-Theorie worden opgelost. Dit is een van de redenen waarom *hoofdstuk 5.* volgens de ideeën van de Regeer-en-Bind-Theorie is opgezet. Met betrekking tot het eerste en het tweede probleem dat hierboven vermeld is, neemt dit hoofdstuk zonder verdere discussie aan, dat er een Oblieke positie tussen het Direct Object en het werkwoord bestaat, wat enigszins in strijd is met wat er in hoofdstuk 4. gezegd is. Daarentegen handhaaft hoofdstuk 5. de theorie over het parametrische verschil in casus-toekenning tussen SOV-

en SVO-talen, waarbij nu de (structurele) oblieke naamval van dubbele object-constructies zijn eigen positie buiten de $\bar{V}$ (kleine VP) krijgt toegekend.

Het probleem dat in hoofdstuk 5. in de eerste plaats aan de orde wordt gesteld, echter, is eigenlijk een zoveelste restprobleem van hoofdstuk 4., dat op dat moment niet als zodanig opgevat werd: de vrije ordening van de Nominatief en de Datief in passieven van dubbele object-constructies in het Nederlands en het Duits, die ook bij bepaalde intransitieve werkwoorden in deze talen waargenomen kan worden. De betreffende werkwoorden worden allemaal als ergatieve werkwoorden geanalyseerd, zodat de gevallen kunnen worden samengeklapt: in beide structurele klassen is de Nominatief een (NP,$\bar{V}$) in de D-structuur die geen structurele naamval van het werkwoord kan krijgen.

Er wordt nu betoogd, dat weliswaar de Nominatief bij de NOM-DAT-volgorde in de (NP,S)-positie staat, maar dat hij bij de DAT-NOM-volgorde in de (NP,$\bar{V}$)-positie staat, terwijl de Datief dan in de (NP,S)-positie mag optreden. Hierbij wordt een nieuw mechanisme, ketenrectie, voorgesteld dat een externe casus toestaat (omlaag) te percoleren om naamval aan een casusloze NP *in situ* toe te kennen, waarbij de externe naamval van de COMP afkomstig mag zijn (Nominatief) of van een hoger werkwoord (Accusatief). Aangezien een externe naamval ook onder rectie mag worden toegekend, kan deze ook op de Subjectpositie belanden, in welk geval de casusloze NP zich naar die positie toe zal moeten verplaatsen. Tenslotte wordt aangenomen, dat de keuze voor keten-rectie parametrisch is. Van deze configurationele behandeling van bepaalde aspecten van de vrijheid van woordvolgorde in het Duits en het Nederlands wordt betoogd, dat zij laat zien, dat het Duits en het Nederlands niet nonconfigurationele talen behoeven te zijn. In sectie 5. and 6. wordt getoond, hoe deze analyse kan worden uitgebreid tot Nominatief-Datief-Inversie in copula-constructies en Raising-contexten en tot NP-inversies bij enige andere werkwoorden, met name Nominatief-Accusatief-Inversie bij psychologische werkwoorden.

In de sectie Opmerkingen volgende op hoofdstuk 5. wordt er gesuggereerd, dat we wellicht voor het Duits en het Nederlands Verplaats NP helemaal zouden kunnen opgeven, aangezien de recente literatuur meer dan genoeg evidentie geeft voor het bestaan van een Adjunctie-operatie in de syntaxis van het Nederlands en het Duits, die optioneel argument-NPs en PPs van hun D-structuurpositie wegverplaatst en ze aan een dominerende projectie aanhecht — in veel gevallen buiten hun eigen VP. Dit maakt een regel NP-Verplaatsing overbodig. Als Verplaats NP wordt opgegeven, zal casustoekenning in een taal die voor keten-rectie gekozen heeft, eenvoudiger worden. Een casusloze NP zal dan altijd door keten-

rectie een externe naamval ontvangen. Alleen als er een extern argument is, zal zo'n naamval aan de (NP,S)-positie worden toegekend.

In een nawoord tenslotte worden de belangrijkste eigenschappen van de syntaxis van zinnen in de Germaanse SOV-talen, zoals die uit dit boek (artikelen en Opmerkingen samen) naar voren komen, nog eens op een rijtje gezet.

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STELLINGEN

horende bij het proefschrift *Studies in West Germanic Syntax*
van J.B. den Besten
te verdedigen aan de Katholieke Universiteit Brabant
op vrijdag 22 december 1989 te 14.15 uur

1. Lexicaal deletieve regels zijn structuurafhankelijke operaties.

2. V-naar-COMP (i.e. INFL-naar-COMP) in de Germaanse SOV-talen creëert soms "nieuwe", maar nooit extra morfologie.

3. Verb Raising mag slechts onder het grootst mogelijke voorbehoud samen met V-naar-INFL en INFL-naar-COMP tot de klasse der hoofdverplaatsingen gerekend worden.

4. De in het Afrikaans optredende ingebedde vragen van het type WH -(COMP) - V_f - NP - .... en COMP - V_f - NP - ...., die in de Germaanse talen van Europa niet voorkomen, vragen om een verklaring die zowel het Afrikaans als de Germaanse talen recht doet. Een dubbele CP-analyse kan verklaren, waarom zulk soort zinnen in de Germaanse talen niet optreedt. Daarom moeten we aannemen, dat in ieder geval deze analyse voor dit type bijzinnen in het Afrikaans niet beschikbaar is.

5. De gedachte dat pidgintalen geen INFL zouden bezitten en dat pas bij creolisatie door heranalyse van adverbia en hulpwerkwoorden een INFL (het bekende TMA-complex) kan ontstaan, is aan herziening toe, aangezien voor het Zuidafrikaanse pidgin Flaaitaal (Flytaal) en het verwante Gepidginiseerde Afrikaans een V-naar-INFL-regel mag worden aangenomen.

6. Uit de aanname dat *er* een adverbium is, volgt niet, dat *er* geen NP is. (Idem voor *hier, daar, waar.*)

7. Heranalyse van Engelse V+P-reeksen in zgn. pseudopassieven vertoont opvallende parallellen met Nederlandse *be*-prefixatie. Hieruit zou een argument gehaald kunnen worden voor de plaats van althans deze heranalyseregel in de vigerende generatieve grammaticamodellen.

8. De poging van de glottochronoloog Ehret (1982) om op basis van een lijst van 100 woorden het !Kora samen met het Nama in de Oranje-Rivier-subgroep van het Khoekhoe (Hottentots) te plaatsen tegenover de subgroep van de (uitgestorven) Kaapse dialecten van het Khoekhoe, is taalkundig en filologisch een aanfluiting, en getuigt voorts van een groot dédain voor de locale tradities volgens welke vele !Kora-clans van de Kaap afkomstig zijn. Hiermee heeft Ehret de geschiedschrijving van Zuid-Afrika een slechte dienst bewezen.

   Ehret, Chr. (1982) 'The First Spread of Food Production to Southern Africa.' in: Chr. Ehret en M. Posnansky (red.) *The Archaeological and Linguistic Reconstruction of African History.* Berkeley, etc.: University of California Press. pp. 158-181.

9. De harde bewering van Veth (1889: 5-7), overgenomen in het WNT deel 9 (1913), als zou er geen verband bestaan tussen de woorden *neger* en *negerij*, omdat *negerij* is afgeleid van Maleis *neg(e)ri* '(o.a.) stad, dorp', is een goed voorbeeld van de in Nederland in de vorige eeuw gegroeide desinteresse voor de premoderne koloniale geschiedenis. Omdat ook de makers van het WNT niet gezien hebben, dat het achttiendeëeuwse *negerij* ook 'slavenkwartier' kon betekenen, is het eenzijdig verbandleggen tussen Ndl. *negerij/negorij* en Mal. *neg(e)ri* in de etymologische woordenboeken van het Nederlands gehandhaafd.

   Veth, P.J. (1889) *Uit Oost en West. Verklaring van eenige uitheemsche woorden.* Arnhem: P. Gouda Quint.
   WNT deel 9 (1913): *Woordenboek der Nederlandsche Taal.* Negende deel, bewerkt door A. Kluyver, A. Lodewyckx, J. Heinsius en J.A.N. Knuttel. 's-Gravenhage en Leiden: M. Nijhoff, A.W. Sijthoff. (s.v. *negerij*)

10. Wie in een Latijnse genitiefconstructie een Hebreeuwse naam die uitgaat op *-am* wil opnemen, kan twee dingen doen: de naam onverbogen laten (*filius Adam*) of *-am* vervangen door *-ae* (*filius Adae*). Wanneer nu Calboli (1980: vii) meedeelt de genitief *Noahae* in de woordgroep *Noahae Chomsky doctrina* etc. zelf geconstrueerd te hebben, naar gegevens in de *Thesaurus Linguae Latinae* over de naam *Abraham*, bewijst hij slechts deze Thesaurus niet te kunnen hanteren, of niet op de hoogte te zijn van de bijbelse geschiedenis van de naamgeving van aartsvader Abraham.

   Calboli, G. (1980) 'Exordium.' in: G. Calboli (red.) *Papers on Grammar* 1 (Consiglio Nazionale delle Ricerche/Università di Bologna, Istituto di Filologia Latina e Medioevale). Bologna: CLUEB. pp. vii-x.
   Thesaurus Linguae Latinae editus auctoritate et consilio academiarum quinque Germanicarum Berolinensis Gottingensis Lipsiensis Monacensis Vindobonensis. Vol. 1. Leipzig: B.G. Teubner, 1900. (s.v. *Adam, Abraham*)

11. Bij een promotie aan een katholieke universiteit als de KUB zou het niet misstaan, als de promovendus de opponenten met *opponens* zou mogen aanspreken.

    Aanwijzingen voor promovendi. Katholieke Universiteit Brabant, Secretariaat College van Dekanen.